

.....

California Department of Social Services

Planning Advance Planning Document

• • • • • • •
California's Plan to Plan for a New System to Replace the Current CWS/CMS

April 10, 2006

Office of Systems Integration

TABLE OF CONTENTS

1. Introduction	4
1.1. OVERVIEW	4
1.1.1. California's Plan for a New System to Replace the Current CWS/CMS	4
1.1.2. Scope of PAPD	8
1.2. BACKGROUND	9
1.2.1. Child Welfare Services	9
1.2.2. Current CWS/CMS	10
1.3. PLANNING PHASE ACTIVITIES AND STATUS	11
1.3.1. Accomplishments	11
1.3.2. Remaining Planning Tasks	14
2. Statement of Need	16
2.1. BUSINESS PROGRAM BACKGROUND	16
2.1.1. Program Description	16
2.1.2. Business Process Description	17
2.1.3. Business Needs	17
2.2. BUSINESS PROBLEMS AND OPPORTUNITIES	18
2.3. TECHNOLOGY PROBLEMS AND OPPORTUNITIES	24
2.4. BUSINESS OBJECTIVES AND FUNCTIONAL REQUIREMENTS	25
2.5. ALTERNATIVES ANALYSIS	29
2.5.1. Assessment Approach	30
2.5.2. Findings	31
2.5.3. Recommended Alternative and Selected Approach	33
2.5.4. Interface Requirements	40
2.5.5. Interfaces Relevant to the New System	41
2.5.6. Security Approach	44
2.5.7. Disaster Recovery and Contingency Planning Approach	46
2.6. COST/BENEFIT ANALYSIS	46
2.7. GLOBAL ASSUMPTIONS AND INFORMATION SOURCES	49
2.7.1. Global Assumptions	49
2.7.2. Information Sources	50
2.8. QUALITATIVE BENEFITS	51
2.8.1. Increased Delivery of Services to Children and Families	52
2.8.2. Increased Delivery of Services in Adoption	53
2.8.3. Improved Efficiencies through Interfaces	54
2.8.4. Improved Financial Management	55
2.8.5. Improvements to Child Welfare Administration	56
2.8.6. Improved Credibility	57
2.8.7. Improved Usability	57

2.8.8. Increased Productivity	57
2.8.9. Open and Flexible Architecture and System Design	57
2.8.10. Improved Ongoing Maintenance	58
2.8.11. Improved Security/Confidentiality	58
2.9. QUANTITATIVE BENEFITS	59
2.9.1. System Savings.....	60
2.9.2. Error Reductions in the Foster Care Program Administration	60
2.9.3. Increased Productivity	61
2.9.4. Program Savings	65
2.10. BENEFIT PROFILE	73
2.11. ONGOING BENEFIT MEASUREMENT	74
2.12. STATEMENT OF VISION.....	74
3. Project Management Plan For Planning	75
3.1. PROJECT SCOPE	75
3.2. PROJECT MANAGEMENT	76
3.2.1. Project Planning and Tracking.....	76
3.2.2. Requirements Management	77
3.2.3. Configuration Management (CM)	77
3.2.4. Contracts/Procurement Management.....	78
3.2.5. Risk Management.....	78
3.3. PROJECT ORGANIZATION AND PERSONNEL RESOURCES	78
3.3.1. Project Organization	79
3.3.2. Project Planning Team Resource Needs	85
3.3.3. Other.....	91
3.3.4. Other - Travel	91
3.4. PLANNING ACTIVITIES	95
3.4.1. Planning Initiation	95
3.4.2. RFP Development and Procurement.....	95
3.5. PLANNING DELIVERABLES.....	98
3.6. PLANNING ACTIVITY SCHEDULE.....	101
4. Cost Allocation and Total Project Cost.....	105
4.1. COST ALLOCATION.....	105
4.2. TOTAL PROJECT COST	105
Appendix A - TAAA Cost Benefit Analysis.....	106
Appendix B - Economic Analysis Worksheets.....	142

1. INTRODUCTION

The California Office of Systems Integration (OSI), on behalf of the California Department of Social Services (CDSS), is submitting this Planning Advance Planning Document (PAPD) to request funding approval for the planning activities necessary to conduct a competitive procurement for the design, development, implementation, maintenance, and operation of its new Statewide Automated Child Welfare Information System (SACWIS). This PAPD has been prepared in accordance with federal guidelines (45 CFR¹ Part 95, Subpart F) and the State Systems APD Guide.

1.1. OVERVIEW

1.1.1. California's Plan for a New System to Replace the Current CWS/CMS

BACKGROUND AND CONTEXT

California's child welfare system is the largest in the nation. With 58 counties and a diverse population, it is among the most complex. More than 700,000 children come into contact with California's child welfare system each year. This includes children who are the subject of reports of abuse and neglect as well as the more than 83,000 children who are in the foster care system. The top priority for the California Department of Social Services is keeping children safe and families intact.

The needs of children and their families served by child welfare agencies are increasingly complex. Studies by The National Center for Substance Abuse and Child Welfare indicate that a significant percentage of parents in the child welfare system struggle with substance abuse disorders in addition to frequently co-occurring mental health issues. A recent study by Burns et al. reports, "nearly half (47.9%) of the youths aged 2 to 14 years with completed child welfare investigations had clinically significant emotional or behavioral problems." (Journal of the American Academy of Child & Adolescent Psychiatry.43 (8): 960-970, August 2004)

Since the passage of the Adoption and Safe Families Act of 1997 and subsequent state legislation, there has been increasing emphasis in child welfare on timely and effective ways to help children and families and achieve permanency for children when they cannot return home safely. In 2001, the Department of Health and Human Services Administration for Children and Families instituted the Child and Family Services Reviews (CFSR) to measure states' performance and hold states accountable for child welfare outcomes.

California's Child Welfare Services (CWS) program has been undergoing a fundamental restructuring both in terms of program management and in the delivery of critical services. Key to this restructuring was the passage and implementation Assembly Bill (AB) 636 in 2001, which authorized the creation of the Child Welfare Services Outcome and Accountability System (CWSOAS). The successful implementation of the CWSOAS provides the State and counties

¹ Code of Federal Regulations

with consistent outcome measures that assess current program performance and identify program priorities. Concurrent with the development of CWSOAS and based on the efforts of the Child Welfare Services Stakeholder Group and the California Child and Family Service Review Program Improvement Plan, State and county program managers have focused on implementing new systems and practices that have a demonstrated impact on improving outcomes for children and families.

Child welfare staff (social workers, supervisors and managers) are the foundation of any child welfare system, however the recruitment and retention of qualified child welfare staff is a huge challenge for California, as well as many other states. In “A Report from the 2004 Child Welfare Workforce Survey” conducted by the American Public Human Services Association, workload was cited as ranking top among factors pertaining to preventable turnover of caseworkers. According to this report, “Workload as contrasted to caseload is a measure not only of the number of the cases handled, but of acuity and complexity of cases, as well as required administrative tasks and resource development.” In response to a survey question rating the severity of problems state welfare administrators have experienced regarding preventable turnover of caseworkers, the following areas were rated highly problematic: workloads too high and/or demanding by 81%; caseloads too high by 78% and too much time spent on travel, transport, paperwork by 44%.

As a result of California’s acute budget crisis in the past several years, there have been few opportunities to address concerns about the size of child welfare caseloads and the associated workload. At the same time, new program practices such as permanency initiatives for foster youth, differential response (a means of early intervention with families to avert crisis) and a standardized safety assessment system are being officially piloted in eleven counties and informally implemented in other counties in recognition of their potential to improve outcomes for children. These practice changes challenge the child welfare agencies to find the time for greater collaboration with community-based organizations, additional training to master the use of safety assessment tools and more time with extended family members or significant others to build lifelong connections for children aging into adulthood. The Department views the CWS/CMS as a means to support the child welfare workforce, contribute to recruitment and retention of staff, and improve the quality and quantity of services to children and families resulting in improved outcomes for children and families.

The Current CWS/CMS Does Not Meet Child Welfare Service Business Needs

The current California system was designed in the early 1990s to meet business needs and practices of child welfare services, as they existed in California at the time. There was no centralized statewide system that allowed State or county Child Welfare workers to share information. The different county systems made information sharing inefficient and time-consuming. The implementation of CWS/CMS provided significant automation of manual tasks, reduced the use of local systems, and resulted in the largest statewide child welfare case-management system in the United States.

Since CWS/CMS was designed and then implemented in 1997, professional practice, laws and regulations, and program needs have changed significantly. The current CWS/CMS is perceived as cumbersome by social workers and does not support service delivery practices in an efficient and effective manner. In fact, many social workers report that current system limitations reduce the amount of time they can spend in the field serving children, their families, and communities.

County and State child welfare staff indicate that the incorporation of the most critical, unfulfilled SACWIS functionality, regardless of the technology platform, would provide significant benefit and would result in improved delivery of services, more effective use of social workers' time, and better quality case data. All of these are critical components to ensure achievement of program outcomes.

The Current CWS/CMS Does Not Meet Service Delivery Needs

Child welfare services are provided to extremely vulnerable populations of families and children, and focused and reliable information is vital to support and validate crucial decisions regarding the safety and well-being of children. SACWIS systems need to integrate easily into a state's model of practice in assessing risk and safety; Identifying environmental conditions, parental capacity and patterns of behavior needing to be addressed to ensure the ongoing safety and well-being of children and to expedite permanency. The delivery of child welfare services is complex and, ideally, the SACWIS system should consistently support the State's expectation for practice and compliance with law, rules, and regulations.

For example, in the past several years dozens of practice changes have been tested and implemented in California's counties leading to larger system changes. According to the recently released "Child Welfare System Improvements In California Report 2003-2005, some of the innovative practice changes include:

- Asking the person making a report of child abuse and neglect about the family's strengths as a way of engaging the family more positively in the initial home visit.
- Calling lower-risk families before making an initial home visit to show respect and begin developing a relationship.
- Inviting community-based providers or parent mentors to join child welfare workers in an initial home visit to decrease anxiety and link families to services more quickly.
- Having community-based specialists make in-person visits to engage Path 1 families and offer services (This is a differential response approach).
- Holding an in-person "transition" visit with the family, child welfare staff, and community provider after the initial assessment determines that the community provider will take the lead on service delivery.

The Current CWS/CMS Does Not Sufficiently Support Improved Outcomes for Children and Families
--

California's Child Welfare Services (CWS) program serves children who have been abused or neglected, reuniting them with their families whenever possible. When a child cannot be safely returned to their family, CWS finds an alternative placement for that child or children. California is dedicated to providing a continuum of programs and services aimed at safeguarding the well-being of children and families in ways that strengthen and preserve families, encourage personal responsibility, and foster independence.

California's CWS program is focusing on the following outcomes:

- Children are first and foremost protected from abuse and neglect.
- Children are safely maintained in homes whenever possible and appropriate.
- Children have permanency and stability in their living conditions.
- Continuity of family relationships and connections is maintained.
- Families have enhanced capacity to provide for their children's needs.
- Children receive appropriate services to meet their educational needs.
- Children's health and mental health needs are assessed/met.

Changing the current CWS/CMS to measure new outcomes or correct errors is an expensive and tedious process. Yet accurate data is critical to state and county program managers to gauge progress towards achieving improved outcomes especially as the State and counties re-structure programs and services and implement practice changes.

SUPPORTING CHILD WELFARE PRACTICE WITH TECHNOLOGY
--

A major challenge in the development and enhancement of a statewide automated child welfare information system is dealing with the complexity and challenges inherent in fulfilling child welfare services responsibilities. While there are variations in child welfare service practices from a national and local perspective, there is agreement, and corresponding federal requirements, regarding the core outcomes to be achieved – Child Safety, Child and Family Well-being, and Permanency for the Child.

The State of California has embraced this challenge and determined that the future technology direction for the Child Welfare Services/Case Management System (CWS/CMS) must be tied to the business challenge of enabling the delivery of effective services and improving outcomes for the State's at risk children. In other words, *the needs of the children drive the practices of the service delivery organization and provide the target for strategic employment of technologies.*

In response to requests by the California Legislature and the Federal Health and Human Services Agency Administration for Children and Families (ACF), the California Department of Social Services (CDSS) undertook an extensive analysis (Technology Architecture Alternatives Analysis or TAAA) to address and link the current and future business needs of child welfare services to a technology direction of CWS/CMS. The results of this analysis yield two critical recommendations:

1. Optimize the system to meet the counties' current business needs and meet emerging needs to facilitate effective delivery of services, the State should continue maintenance and operations (M&O) of the current CWS/CMS while simultaneously building a new SACWIS application using a web services based Technical Architecture.
2. Revise the system to meet the missing service delivery support needs of the counties by implementing the four major unfulfilled SACWIS requirements (Adoptions Case Management; Automated Title IV-E Eligibility Determination; Interfaces to Title IV-A (CalWORKS), Title IV-D (Child Support), IV-E (Foster Care) and Title XIX (Medi-Cal) Systems; and Financial Management for Out-of-Home Care and Adoptions Assistance

Payments). These business functions are critical to fulfilling the requirements of the counties in providing services to children and families.

In addition, CDSS and county child welfare agencies agree that it is time to:

3. Take advantage of new technology to improve the CWS/CMS so that social workers time can be better utilized working with children and families.

Two other alternatives were considered in the TAAA report and determined to be less desirable:

Alternative I: Continuing the current CWS/CMS - will exacerbate existing pressures on the child welfare workforce to spend more time with children and families in their caseloads while at the same time, using out dated technology to record contacts, write required court reports, etc. Operating and changing the current system is also the most costly alternative.

Alternative II: Gradually evolving to a new CWS/CMS over time - would prove complicated and technically riskier as child welfare staff would be expected to use parts of the old and new systems simultaneously raising the possibility of confusion and error, extensive training requirements, as well as delay in the benefits the web-based solution would provide.

The Best Long-Term Solution: a Web-Based CWS/CMS

A fully SACWIS compliant New System using a web services based technical architecture will provide:

- The best solution to meet the current and future needs for the delivery of child welfare services.
- A new strategic technology direction that meets the needs of county, State, and federal stakeholders.
- The best solution to meet known business requirements for the delivery of child welfare services and provides social workers with the necessary tools to ensure child safety, child and family well-being, and permanency for children.
- Automation of routine activities (documenting actions and activities, data management and reporting) and support complex tasks (decision support in child protective services, foster care placements, and case planning).

1.1.2. Scope of PAPD

The New System project is divided into planning and implementation phases. The Planning phase activities are based upon the results of previous activities conducted by the State. These previous plans include the Technical Architecture Strategic Plan (TASP) and the Go-Forward Plan (GFP), which resulted in the Technical Architecture Alternatives Analysis (TAAA) report. The scope of this PAPD is intended to address the remaining planning phase activities. Completion of all planning phase activities is scheduled for November 2008. In the implementation phase, the team will expand to include the winning Contractor and activities will be focused on the development and implementation of the New System. An Implementation APD will be submitted prior to commencement of the Implementation phase.

1.2. BACKGROUND

1.2.1. Child Welfare Services

The CWS program is a federally required program operated by each of the 50 states. California is one of 11 states that operate on a State-supervised/county-administered model of governance for the CWS program. Under this system, CDSS is responsible for the design and operation of the CWS program. CDSS develops and implements the regulatory and statutory requirements governing the program, provides overall guidance to the counties (including monitoring and supporting counties through regulatory oversight, administration, and the development on policies and laws), and each of California's 58 individual counties administers the child welfare program on behalf of CDSS. The overall objective of the CWS program is that:

Every child in California lives in a safe, stable, permanent home, nurtured by healthy families and strong communities.

California's CWS program serves children who have been abused or neglected, reuniting them with their families whenever possible. When children cannot safely remain in their home, CWS finds alternative placement for that child or children. California is dedicated to providing a continuum of programs and services aimed at safeguarding the well-being of children and families in ways that strengthen and preserve families, encourage personal responsibility, and foster independence. California's Child Welfare Services program focuses on:

- Preventing child abuse.
- Protecting and promoting the well-being of children who have been abused or neglected by their parents or other caretakers.
- Assisting families to develop the capacity to safely care for their children.
- Ensuring safe, permanent homes for children who have been abused or neglected (by reuniting them with their parents or finding adoptive homes, legal guardians, or other permanency options).
- Assisting older children to develop independent living skills so that they can transition to healthy adulthood.

The Children and Family Services Division (CFSD) is the organizational entity within CDSS responsible for CWS policy development, program management, and oversight of the counties administering the CWS program. CFSD fulfills this role through a broad spectrum of activities and tasks, including the following:

- Developing and implementing program requirements and guidance through statute, regulation, and policy.
- Securing federal and State funding to support CWS programs.
- Conducting research and developing new programs and services.
- Providing oversight and evaluation of local and statewide demonstration projects.

- Providing statewide "best practices" program training for social workers.
- Providing statewide CWS/CMS training for case management activities.
- Supervising ongoing county program operations.
- Serving as the system's sponsor, with overall responsibility for the current CWS/CMS and the New System Project.
- Providing direct services to children and the public, such as adoption.

This State-supervised/county-administered approach to child welfare services provides for overall program management and objectives to be set by the State, while giving counties local control of CWS program operations to better reflect their communities' child welfare services standards.

1.2.2. Current CWS/CMS

The current CWS/CMS was originally implemented in 1997, with continued development through final rollout in 1998. Since that time, the State has been in the maintenance and operations (M&O) phase of the project, with only minimal new development activity occurring concurrently. The system supports all 58 California counties and the CDSS, and has over 19,000 user ids. Since its implementation, the system has incorporated all but four of the major SACWIS functional capabilities provided for by federal regulation, specifically:

- Adoption case management.
- Interfaces for Title IV-A (CalWORKs), Title IV-D (Child Support), Title IV-E (Foster Care), and Title XIX (Medi-Cal) data exchange.
- Automated Title IV-E eligibility determination.
- Financial management for Out-of-Home Care and Adoption Assistance Payments.

The system's current technical architecture is comprised of technologies and concepts that were common for large mission-critical systems in the mid 1990s. The limitations of the current CWS/CMS are that it:

- Depends on technologies that are expensive to maintain and restricts strategies to meet program goals.
- Does not lend itself to enhancement using emerging technologies.
- Is costly and time consuming to change to accommodate the new and evolving program needs.

1.3. PLANNING PHASE ACTIVITIES AND STATUS

1.3.1. Accomplishments

1.3.1.1. *Completed Technical Architecture Strategic Plan*

In June 2002, CDSS published the CWS/CMS Strategic Plan, which outlined the need for modernizing the current CWS/CMS to a web services-based technical architecture. Subsequently, the CWS/CMS Project Office, with technical assistance from industry expert Gartner Group, developed the Technical Architecture Strategic Plan (TASP). This document, which was published in April 2003, outlined a rationale and conceptual framework for fulfilling many of the technical projects and policy initiatives identified in the CWS/CMS Strategic Plan. In particular, the TASP identified a conceptual framework for modernizing and evolving the current CWS/CMS to a web-based technical architecture. According to the TASP, evolving to a new architecture over time was the most cost-effective approach for modernizing the CWS/CMS to meet the needs of today's users.

Although the TASP provided a framework for evolving the current CWS/CMS technical architecture, the document did not actually consider building an entirely new system and technical architecture, since no studies had been conducted to determine the cost or programmatic benefits of that approach. Rather, the TASP conceived of replacing the user interface and application logic layers of the current CWS/CMS technical architecture while keeping the majority of the database layer intact.

Since the release of the TASP, California and the Administration for Children and Families (ACF) have continued discussions regarding the future of the CWS/CMS. In a meeting held March 31 and April 1, 2004 in Washington, DC, between the State and ACF, the two parties agreed that the most expeditious means of determining the best technical architecture solution would be to conduct a Technical Architecture Alternatives Analysis (TAAA).

1.3.1.2. *Completed Go-Forward Plan and Associated As-Needed ADPU*

Based on the outcome of the meeting in Washington, DC, the State prepared a Go-Forward Plan (a conceptual document describing California's agreements with ACF and its approach to fulfilling those agreements). The Plan presented the State's strategy for accomplishing the following items from the meeting:

- **TAAA Project** – An alternatives analysis of three potential technical architecture solutions.
- **CWS/CMS Application Re-hosting** – Migration of the current CWS/CMS application to the Department of Technology Services (DTS), achieving full operating capabilities within 20 months after the effort begins.
- **Subsequent Application Maintenance Services Procurement** – Subsequent vendor procurement for application maintenance services.

The State's Go-Forward Plan and associated As-Needed Advance Planning Document Update (APDU) were intended to gain ACF approval of the overall activities and timelines presented. The Go-Forward Plan and supporting As-Needed APDU were submitted in August 2004, and ACF approved them in October 2004. The State immediately initiated the planned activities.

1.3.1.3. Completed Technical Architecture Alternatives Analysis

In response to requests by the California Legislature and the ACF, in November 2004 the California Department of Social Services (CDSS) undertook an extensive analysis (TAAA Report) to address the current and future business needs of child welfare services and link them to a particular technology direction. The TAAA Report concluded that the evolving needs of the program could not be met by the current system's technical architecture. The report recommended an alternative architecture that would provide a platform on which new and innovative business solutions could be enabled, ultimately resulting in more efficient, effective, and economical program administration.

The TAAA (see Appendix A) focused its analysis on addressing and linking the current and future business needs of the Child Welfare Services program to a technology direction for the current CWS/CMS. To accomplish the objective of this analysis, a consulting team was structured to assist the State. Team members understood the need for the TAAA, were very familiar with OSI Best Practices, were experienced at assessing technology alternatives with a focus on reducing risk and total cost of ownership (TCO), and possessed expertise in large system technical architecture alternatives analysis.

The TAAA team—composed of Eclipse Solutions, Gartner Consulting, the Center for the Support of Families and Children, and Software Productivity Research—analyzed the technical alternatives and provided a TCO comparison among each of the following three alternatives:

- **Alternative 1** – Continue with the current CWS/CMS technical architecture (status quo).
- **Alternative 2** – Evolve the current CWS/CMS technical architecture to a web services-based technical architecture over time (evolve and build).
- **Alternative 3** – Continue M&O of the current CWS/CMS while simultaneously building a new SACWIS application using a web services-based technical architecture (replace).

The TAAA also included a determination of the appropriateness of implementing the unfulfilled SACWIS requirements from a business and financial perspective. The results of the TAAA yielded two critical recommendations supported with a TCO (total cost of ownership) analysis. These two recommendations were:

- **Replace the Current CWS/CMS with a New California SACWIS** – To best meet counties' current business needs the TAAA team recommended that the State continue M&O of the current CWS/CMS while simultaneously building a new SACWIS application (including the re-development of current functionality) using a web services-based technical architecture. This is including functionality of the unfulfilled federal SACWIS requirements and satisfying their emerging needs to improve the delivery of services.
- **Develop and Deploy the Four Major Unfulfilled SACWIS Requirements** – The TAAA team recommended that the State implement the four major unfulfilled SACWIS requirements as part of the web services-based solution. Based on county input, automation of these business functions were deemed critical to meeting county requirements to improve the efficiency and effectiveness of county program and business processes essential to local program administration.

The TAAA report was submitted to ACF on April 1, 2005. The State received a letter from ACF on May 16, 2005 in support of the report's recommendations, including the recommendation to immediately implement the remote access and data warehousing initiatives in advance of original target dates. Among other things, ACF commented that they found the TAAA report to be well written and thorough, provided a reasonable basis for the State to move forward with its development effort, and looked forward to a detailed response clarifying California's goals and next steps. The TAAA Report was also submitted to the California Legislature on April 1, 2005, where it was extensively discussed. The Legislative Analyst's Office (LAO) and Budget Committees of the California Legislature reviewed the TAAA report, with favorable reviews.

Based on the results of the TAAA, the State believes that re-architecting the system can:

- Reduce maintenance costs.
- Reduce the time and costs required for system upgrades.
- Provide improved functionality and more efficient user access.
- Allow for more effective use of commercial off-the-shelf software (COTS).
- Allow the incorporation of web service components.
- Produce an open system architecture that is more efficient, effective, and economical to support than the current CWS/CMS.

California is now pursuing the development of a New System. The primary purpose of this effort will be to develop a web services-based technical architecture for the current application, including re-development of current functionality and new development of the four unfulfilled SACWIS requirements. The New System will include improvements that take advantage of the new architecture to improve support of State and county program requirements. As statewide functionality (i.e., adoptions) is implemented in the New System, existing county external systems will be retired. The current CWS/CMS will be maintained during the development and decommissioned upon statewide implementation of the New System.

The New System will continue the same core functionality and business rules but will include the four major missing SACWIS requirements and updates to address priority business deficiencies defined by the State and its counties. The State intends to use the potential of web and browser technologies to effectively and efficiently address the user interface, database access and screen navigation inefficiencies of the current system as well as data management and reporting business needs. Improved navigation gains operational efficiency, as it will enable workers to navigate directly to a function rather than moving sequentially through multiple screens. The underlying business processes are sound and the New System is not intended to change those processes. However, during the planning and implementation phases, if the State identifies any opportunities for business process improvement, there will be a process to evaluate those opportunities for implementation.

The State's approach to providing remote access involves obtaining infrastructure hosting services from the California Department of Technology Services (DTS) and supplementing that service with server-based computing software and staff to maintain the software and connectivity. Specific discussion surrounding the solution and the development/implementation approach will be contained in the State's CWS/CMS Annual APDU.

1.3.1.4. *Creation of New System Project Team*

The New System Project Team has been established. This unit is known currently in our organization as the New Projects Integration Unit. This unit oversees the Go-Forward Plan activities of application re-hosting, M&O re-procurement, and the New System project, which was subsequent to the completion and approval of the TAAA.

1.3.2. Remaining Planning Tasks

The State is currently pursuing the approval of this PAPD and is continuing development of the New System business and technical requirements. Upon approval of the PAPD, the State anticipates a 29-month planning phase which will include obtaining consultant services, selecting State and county staff to fill project team roles, completing system and RFP requirements, developing a RFP, and conducting a procurement to obtain a systems integrator. Each of these tasks is discussed in the following sections.

1.3.2.1. *Approval of PAPD*

This PAPD is submitted to the State of California DOF and ACF for review and approval. The New System project plans and costs presented in this document are based on obtaining State and federal approval by May 2006. If State and or federal approvals are delayed then any project plan and costs presented in this document will be adjusted appropriately.

1.3.2.2. *Project Initiation*

The State plans to conduct a 2-month project initiation to position the planning team for the aggressive RFP development and procurement schedule. Project initiation will include:

- Concept of Operations.
- Defining assumptions and constraints.
- Evaluating applicability of assumptions and constraints.

1.3.2.3. *Obtain Consultant Services*

The State plans to obtain consultant services to directly support the New System Project Team in planning activities. The State will utilize the appropriate procurement vehicles to execute its contracts and expects, at minimum, to review submissions, evaluate proposals, and score each prospective vendor. During the planning phase, consultants will be acquired for:

- RFP assistance.
- Project management support.
- Independent project oversight.
- Technical IV & V.
- County consultants will be acquired for their expertise during the planning phase.

- System Architect contract.

Consultant responsibilities and contract durations are detailed in section 3.3.3.3. State and federal regulations will be followed in carrying out these procurements.

1.3.2.4. Selection of the State and County Project Teams

The State will identify specific staff to fill roles on the State and county project teams to perform the remaining planning tasks to support the subsequent development, implementation, and maintenance phases of the project. For all new County contract positions, the State will submit the acquisition and contract documents for prior State and federal approval.

1.3.2.5. Complete New System RFP Development and Procurement

Completion of the New System RFP development and procurement process will be an effort involving all entities of the planning team (see section 3.3.1 – Project Organization). While OSI has management responsibility for the planning and execution of this project, the State has oversight responsibility and its project management approach is based on the formation of an integrated project team consisting of staff from OSI, CDSS, the counties, Independent Project Oversight Consultant (IPOC), Technical Independent Verification and Validation (Technical IV&V), System Architect, and Project Management Support. OSI will utilize qualified staff and consultants to perform activities to complete the development and procurement of the New System integrator.

1.3.2.6. Complete Implementation Advance Planning Document

The state will complete and submit an Implementation Advance Planning Document (IAPD) per ACF guidelines that will outline the state's approach to implementing the New System.

2. STATEMENT OF NEED

“This section of the Planning APD should set forth the State’s information and services “vision”, including the scope and objectives of the planned information system and its interrelationships with other systems (if known). In addition, the needs statement should define the system requirements in terms of problems and needs which may represent:

- Deficiencies in existing capabilities,
- New or changed program requirements, or
- Opportunities for economies or efficiencies” - State Systems APD Guide (September 1996)

2.1. BUSINESS PROGRAM BACKGROUND

2.1.1. Program Description

Child Welfare Services (CWS) programs are federally mandated and operate in each of the fifty states. California’s CWS program is operated by each of the 58 counties and supervised by the California Department of Social Services (CDSS). The program serves children who have been abused or neglected, reuniting them with their families whenever possible. California is dedicated to providing a continuum of programs and services aimed at safeguarding the well being of children and families in ways that strengthen and preserve families, encourage personal responsibility, and foster independence. California’s CWS program is a broad program that focuses on:

- Preventing child abuse.
- Protecting and promoting the well-being of children who have been abused, exploited, or neglected by their parents or other caretakers.
- Rehabilitating abusive or neglectful parents or other caretakers.
- Ensuring safe, permanent homes for children who have been abused or neglected (by reuniting them with their parents or finding adoptive homes, legal guardians, or other permanency options).
- Assisting older children to develop independent living skills so that they can transition to healthy adulthood.

As of December 31, 2005, the California CWS/CMS database included:

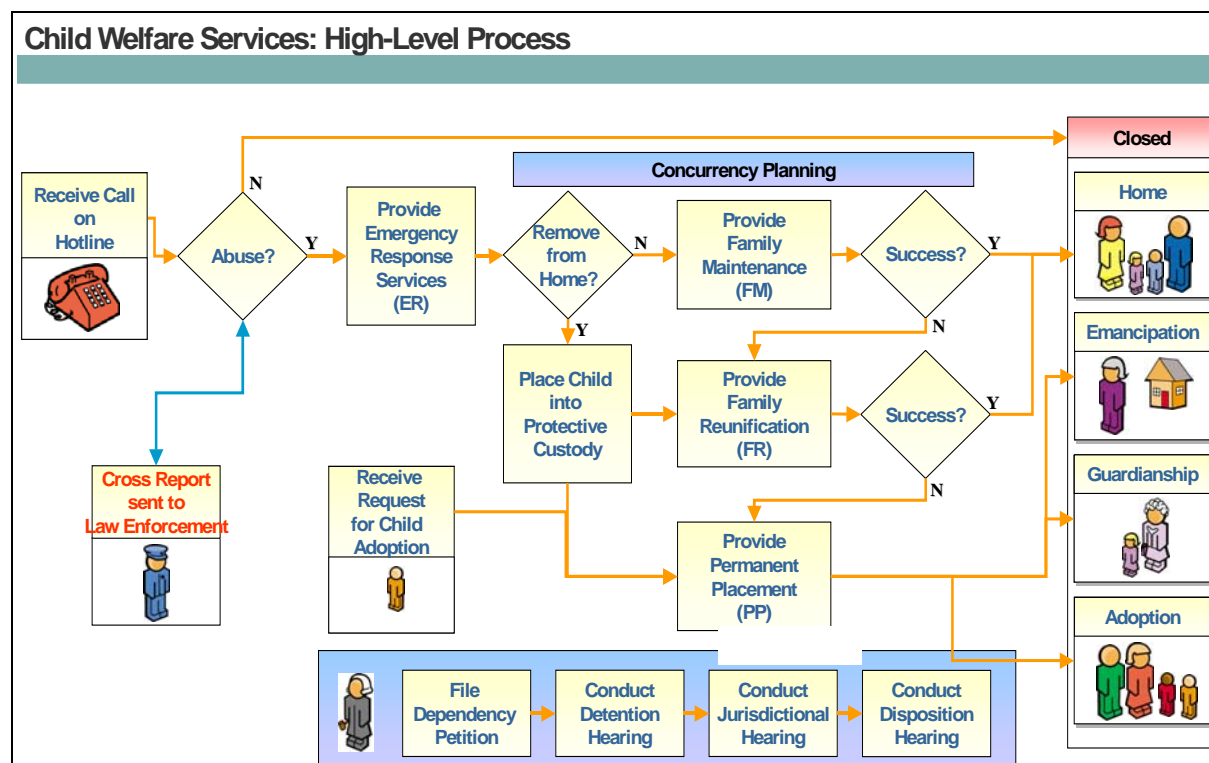
- 1,121,972 total cases
- 129,683 active cases
- 30,558 active referrals
- 4,367,784 referrals (includes children with one or more referrals and children in foster care)

In 1993, the federal government instituted a set of requirements known as SACWIS-Statewide Automated Child Welfare Information Systems. These require participating state welfare agencies to provide consistent data and reports, while ensuring that each case is handled quickly and efficiently. To effectively support the CWS workload, improve the delivery of services to children and families, and to meet SACWIS requirements, an automated system was developed by IBM for California in the mid-1990s. This system is known as CWS/CMS and is managed by CDSS. CWS/CMS allows State and county child welfare workers to manage caseloads more efficiently and to share information on CWS cases.

2.1.2. Business Process Description

County welfare departments provide CWS program services directly and through community organizations. The functional business process (depicted in Figure 1) is generally started when a call comes through the abuse hotline and ends when a child is successfully returned home, provided emancipation, appointed a guardian, or adopted.

Figure 1. High Level Overview of CWS Processes



2.1.3. Business Needs

Child welfare social workers make life-altering decisions on a daily basis in their work with California's most vulnerable children and families. Some of these families have complex problems such as substance abuse and/or mental health issues, sometimes of a longstanding nature. In addition, the workloads for caseworkers are high. It is well established in research and re-confirmed through the work of California's CWS Stakeholders Group that the core guiding principle for successful achievement of the desired outcomes of the CWS program is

the relationship between the social worker and children and their families. Quality interaction between families and social workers and services provided are essential to the achievement of positive outcomes. Many of the program improvements described in this document have the potential to contribute to long-range improvements in both productivity and effectiveness of service provisions to children and families. The fundamental business need is to achieve better social worker productivity through cost-effective enabling technologies, which ultimately allow the social worker to spend more time with children and families.

The TAAA report (Appendix A) recommends replacement of the current CWS/CMS application and architecture with a new application built on a Service Oriented Architecture (SOA) as the most cost effective, highest benefit alternative for California. The report further justifies the California strategy to pursue SACWIS compliance based on validation that SACWIS requirements are consistent with County business needs. The State believes the recommended strategy will address program and business related issues and problems attributed to limitations of the current architecture. Working closely with the counties the State has identified the most significant business drivers for change as:

- Cumbersome and inflexible user interface.
- Inability to support remote access or mobility efficiently.
- Length of time to implement required updates and changes.
- Lack of automated interface to related systems: inability to securely extend access to the system to external business partners and high cost of maintenance.

2.2. BUSINESS PROBLEMS AND OPPORTUNITIES

As stated in Section 2.1.3, quality interaction between families and social workers and services provided are essential to the achievement of positive outcomes. The Problems State and counties workers are experiencing using the current system directly lead to decreases in the time that would be spent with children and families. Problems with the current system impact social workers' ability to administer Title IV-E (including eligibility determination) and IV-B programs as efficiently, effectively, and economically as possible. CWS/CMS users experience problems with the current system because it cannot support evolving requirements for critical interfaces, integrated service delivery, streamlined workflow, or outcome-driven planning, management, and assessment. Through implementation of the recommended solution, the state has the opportunity to increase the amount of time social workers can spend with children and families.

Key business problems and opportunities include:

- **Data Entry and Workflow** – End users must perform data entry tasks that are redundant in nature and lack support for workflow functions. In particular, the technical architecture is designed such that concurrent or simultaneous data updates to the same case record are difficult to achieve. In addition, data entered in one area of the application does not consistently populate the same data fields in other areas.
- The technical architecture also lacks support for automating current workflow solutions. This results in a decrease in user efficiency and successful case management. For example,

multiple workers will update a case during its lifetime for purposes of court hearings, placement changes, eligibility determinations, etc. These users need the ability to update the record as their workflow dictates rather than when the case record is unused.

- Currently, caseworkers must manually enter case data into CWS/CMS. CWS case aids, ancillary CWS Service Providers, and data entry clerks are increasingly employed to enter routine data because data entry is often a time consuming activity. This is the result of complex menu navigation to reach data entry screens, requirement to enter similar data repeatedly, and number of fields requiring manual data entry. During development of the CWS/CMS Strategic Plan, a needs assessment involving more than 350 stakeholders was conducted. During this assessment effort, stakeholders identified numerous technology changes to increase user efficiency by providing more modifications and enhancement to the CWS/CMS data entry mechanisms. Among the needs defined were:
 - Simplify the data entry process, requiring fewer screens with less downloaded data.
 - Automatically notify others when a change occurs, when the change affects the area the users are in and need to be aware of (e.g., when a placement change occurs send an update notification to an eligibility worker).
 - Automatically populate forms and/or reports with case data that already exists within the system.
 - Enable users to access information in multiple cases simultaneously.
 - Increase system flexibility regarding business rules and navigational order of required input.
- Currently, approximately 2% of a user's time is spent on redundant data entry and navigation among many application screens. Redesign of the system could provide opportunities for more time spent with at-risk children and families, as well as increased productivity.
- **Limited System Access** – End-users currently have limited access to CWS/CMS while in the field. Based on the current fat-client technology, dial-up connection to the CWS/CMS application is extremely slow. Opening a case results in an average of approximately 110,000 bytes of data transferred from the host to the client workstation. Over a best-case 50kbps dial-up connection, the data transfer time for this single transaction could be over 4 minutes (the average user executes 14 CWS/CMS transactions per day (275,000 transactions per day divided by 19,500 active users)). A code update on a user's portable workstation over a dial-up connection sometimes takes several hours to complete. If timely remote/mobile system access were available, workers could use CWS/CMS while away from the normal office environment. This would create a "virtual office" by providing these workers the same access to resources whether at home, in the office, or on the road. For example, the social worker could use the system while waiting for court appointments, waiting for doctor appointments, or while at home on-call.

Currently, remote access to the CWS/CMS is cumbersome or the ability to connect is not available. Caseworkers have identified the need to retrieve and record information while in the field. A few examples of how this remote technology could be applied are as follows:

- ❖ While in court, case disposition information can be entered.
 - ❖ While waiting for court appointments, case information can be entered.
 - ❖ While in the home performing assessments or follow-up appointments, data can be entered during or shortly after the visit.
- As information is obtained while out in the field during personal interviews, phone conversations, visits with other organizations, information can be directly entered into CWS/CMS.
 - Improved remote access would allow the social worker to spend more time in the field with the children and families. In the future, additional types of users (e.g. Bureau of Indian Affairs, courts and court officers, case aides and clerks, juvenile probation officers, Independent Living Program service providers, mental health and other therapeutic service providers, law enforcement agencies, foster parents, health and education providers, and public health nurses) could access the system.

With a greater ability of remote access, information could be entered into the system in a more timely fashion. In addition, this ability provides a more collaborative environment as information can also be directly accessed while in the field.

- **Document Storage** – There is a need to provide the ability to store multiple electronic document types. For example, many Juvenile Court judges are requiring the use of digital photographs in the case record, which necessitates storage and management of digital photographs. Currently the CWS/CMS only supports storing of Microsoft Word documents. With improved technology, the ability to store and retrieve a variety of electronic document types (i.e., pictures, scanned images, signatures, etc.) could be achieved. This would allow the social worker to store pictures of abused children, pictures of living conditions, and the ability to store legal documents from court (e.g., third party reports).
- **Optimistic Concurrency** – The system was not designed to allow concurrent update access to the same case data; the optimistic concurrency design causes rework and occasional loss of data (approximately one-half hour rework for each of the average 919 occurrences per week). Typically, there are manual activities to ensure that multiple users are not simultaneously accessing the same data. Technology changes since the original design of the CWS/CMS use methods other than optimistic concurrency to control access to database records. Allowing more access to case data would increase effectiveness of the CWS program.

SACWIS Functionality

The TAAA Team assessed the business need for the SACWIS functionality as part of a series of workshops, interviews, and site visits to identify and define the current needs of the CWS/CMS user community. Overall, the users of the CWS/CMS indicated incorporation of the four major unfulfilled areas of SACWIS functionality would provide significant benefits and would result in improved service delivery, more effective use of the social workers' time, and better-quality case data collected. Additional details on how the unfulfilled SACWIS functionality affects the child welfare program in California are described below.

- **SACWIS Title IV-E Eligibility Determination** – SACWIS requirements mandate that CWS/CMS or an external system must provide for the ability to establish an individual's

eligibility and ensure that all eligibility factors are consistently and accurately applied. Lack of Title IV-E eligibility determination puts the project at risk for loss of certification status and ineligibility for enhanced Federal Financial Participation (FFP). The impact of not implementing this functionality amounts to more than twenty minutes of manual work per social worker per week.

- No Automated IV-E Eligibility Determination
 - ❖ Heavy workload for IV-E eligibility determination – The IV-E eligibility determination (ED) process imposes a heavy workload on social workers and eligibility workers due to the prevalence of manual, work-intensive processes. Social and eligibility workers have to access a variety of disparate systems (CWS/CMS, CalWORKS, Medi-Cal, Income Eligibility and Verification System (IEVS), county payment systems) to gather all of the required information for a IV-E case. Integration between these systems is limited, increasing the problems of excessive data entry, storage of redundant information, and inconsistent data. In addition, probation officers who belong to a separate agency and have no access to any child welfare systems handle probation cases. The lengthy IV-E ED information gathering process can take anywhere from two hours to two days. This results in the need for additional staff and reduces the time social workers can spend with their clients. It increases the administrative overhead associated with the transmission of paper documents between facilities and workers because paper files are maintained in multiple locations.
 - ❖ Inaccurate and inconsistent determination of IV-E eligibility – IV-E ED is primarily a manual process that can vary in its implementation from one county to another. The IV-E ED process must be automated throughout the State to improve its accuracy and remove inconsistent application of policy among eligibility workers and counties. Furthermore, social workers and eligibility workers require much of the same information, but have very different responsibilities and often report to separate organizations. These inconsistencies can significantly degrade the quality of services provided by the program.
- **SACWIS Adoptions Case Management** – The lack of adoptions case management functionality is a barrier to meeting recent State and federal laws, compromises the State's adoption program data, and is insufficient to meet the needs of a rapidly expanding statewide adoption program. Beyond these business needs, SACWIS requirements mandate that CWS/CMS must provide the ability for a full case management function. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding participation. Lack of full automation results in manual processing of forms and reports, and delays successful outcomes. Details of the current quantified business impacts and benefits of automation are presented in Section 2.8 – Quantitative Benefits.
 - The lack of adoptions case management functionality is a barrier to meeting the requirements of *recent State and federal laws*.
 - ❖ The implementation of the federal ASFA and conforming State statute have created a significantly heightened priority on adoptions by requiring a hearing to discuss a permanent plan for the child, such as adoption, on every child residing in foster care more than one year. California law further requires that adoption determinations be

based on an assessment by an adoption agency. Due to these laws, there is significant additional workload for adoptions, particularly in the area of child and applicant assessment, which is not supported by the existing application.

- ❖ AB 1544 (Statutes of 1997, Chapter 793) mandates concurrent planning to move children to permanent homes more quickly. Concurrent planning is a child welfare case planning methodology used when children are removed from their parents' custody due to abuse or neglect and placed into foster care. During the time efforts are being made to return the child home, a contingency plan is developed in the event reunification efforts are unsuccessful. Since this contingency plan is often adoption, this further increases the emphasis on adoption when children in foster care are unable to return home. The existing application does not provide support for concurrent services planning. This functionality would allow workers to document the two service tracks required by law and regulation in CWS/CMS.
- The lack of adoptions case management functionality compromises the State's adoption *program data*.
 - ❖ CWS/CMS captures minimal adoptions data. CDSS captures the remaining adoptions data through manual processes. Significant county and State efforts could be minimized if this were automated.
- The existing adoption functionality is *insufficient to meet the needs* of a rapidly expanding statewide adoption program.
 - ❖ Over the last few years, changes in both State and federal laws have increased emphasis on adoption to provide permanence for foster children who are unable to return to their parents. This new focus is moving more foster children to adoption than ever before. Through the California Adoption Initiative, the number of children placed for adoption nearly doubled from 3,265 in SFY 1995/96 to 6,141 in SFY 1998/99. These numbers have increased to over 7,000 for SFY 2005/06. In addition, the number of children freed for adoption has significantly increased over previous years.
 - ❖ Historical data shows that less than 60% of children entering foster care in any given year will return to their parents within the first six years in foster care. *With 74,000 children in care, the task of providing children with permanent homes is substantial.* Without permanent homes, children will remain in foster care until they emancipate at age 18.
 - ❖ Given the expansion of the statewide adoption program, traditional quality assurance efforts are increasingly impractical. However, automated or online case reviews cannot be performed. The current CWS/CMS application is limited and cannot be used by the State to perform quality assurance functions on adoption cases. For instance, *the CWS/CMS application cannot be used to determine if fundamental regulatory requirements have been met.* The only current alternative is to review the physical case file, resulting in a significant investment in staff and travel costs. In order to meet the adoption needs of increasing numbers of children, public adoption agencies will have to begin working with the children, their birth parents and potential adoptive parents shortly after the children enter foster care. These agencies will have to be able to use the CWS/CMS to manage their case activities and record required

adoption information on behalf of the child. An example of this involves case contacts.

- ❖ Current adoption functionality allows the shielding of adoption data elements. However, case contact narratives with children and adoptive applicants cannot be recorded in a way that is protected by adoption privilege early in the management of the case. *The process for recording required information for these families on the CWS/CMS application does not support the business needs and does not meet the federal SACWIS requirements.*

SACWIS Interfaces

Multiple barriers reduce service delivery efficiency to troubled families - Income support, employment services, and CWS are offered by the same agency in most California counties. However, families requiring services from multiple programs routinely find they are assigned one or more caseworkers for each program and asked many of the same questions by those different workers. The current process of sharing information and collaborating on cases is inefficient and subject to multiple errors. The physical process requiring printing of case/client information to share with a co-worker treating the same client, or members of the same family, is very cumbersome. The information contained on the printout is re-keyed by the other worker into the other system. For example, a social worker places a child in foster care. Information on the child and a case is printed out and given to the eligibility worker. The eligibility worker then re-enters the information into his/her respective system. As the paper is printed and distributed to and from the various workers to share information, it is sometimes lost and/or mishandled. Additionally, because of time and job pressures, it is sometimes not entered into the other system. The current process of sharing information and collaborating on cases is cumbersome, inefficient, and subject to multiple errors. These multiple barriers can be reduced through implementation of the SACWIS interface functionality.

- **SACWIS Title IV-A (TANF) Interface** – SACWIS requirements mandate that CWS/CMS must provide automated exchange of common and/or relevant data with the Title IV-A system that collects information relating to the eligibility of individuals under Title IV-A (TANF). The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding participation. Today, social workers must manually access such data through SAWS, spending about five minutes per case. Automation provides an opportunity to save social worker time through an automated interface.
- **SACWIS Title IV-D (Child Support Enforcement) Interface** – SACWIS requirements mandate that CWS/CMS must provide automated exchange of information with the Title IV-D to establish and report a child support case. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding. Today, social workers must spend about five minutes per case to help make placement decisions. Automation provides an opportunity to save social worker time through an automated interface.
- **SACWIS Title XIX (Medicaid) Interface** – SACWIS requirements mandate that CWS/CMS must provide automated exchange of information needed by the State Medicaid eligibility system to calculate and track Medicaid eligibility. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for

enhanced federal funding. Today, social workers must spend about five minutes per case to help make placement decisions. Automation provides an opportunity to save social worker time through an automated interface.

2.3. TECHNOLOGY PROBLEMS AND OPPORTUNITIES

The business units utilizing the current CWS/CMS experience a range of business problems stemming from the use of older technologies that cannot support today's requirements for critical interfaces, remote access, business collaboration, streamlined workflow, or outcome-driven planning, management, and assessment.

Key of these technology-related business problems and opportunities include:

- **Untimely System Updates** – CWS/CMS receives a variety of system change requests from federal, State, and county sources to perform modifications to CWS/CMS to meet legislative, regulatory, and programmatic needs. The following factors affect the deployment cycle:
 - CWS/CMS release cycle – Once State and federal approval are received, the structured development life cycle is followed by CWS/CMS (i.e., design, program, test, train and release). This development life cycle currently takes a minimum of six months for a release.
 - Size, complexity, and tightly interwoven nature of the application results in an increase in application development time.
 - Effort to integrate existing Web-based services or commercial-off-the-shelf solutions into the system is more difficult.
 - Time-consuming effort the counties must go through to update their data marts and query mechanisms whenever a change is made to the CWS/CMS database schema.

All of these factors result in time-consuming development and, at times, legislation is in effect before the appropriate programmatic changes are updated in the application. For example, the Department of Justice (DOJ) releases updates to reports/forms approximately once a year. If CWS/CMS has not released the programmatic change to create the revised DOJ reports, end-users must manually produce the forms until the change is implemented within the application. A new more modular system will reduce system maintenance time and costs.

- **System Architecture**

- Current technology is not conducive to change. The current design was optimized to support the “fat” desktop client. Rather than following modern model/view/control architecture where the presentation logic is separate from data (model) via a control layer, this architecture is much more tightly coupled. There is no formal “control” layer to act as an intermediary between the GUI layer and the data layer and notify it about changes to the data/views. Rather, the GUI layer incorporates this logic, which in essence results in a tight coupling between business rules, user interface logic, and data.

- A difference between the CWS/CMS architecture and current architectures is the view of business transactions. In a current architecture, each business processes is mapped to a series of transactions which are executed in parallel or sequentially as individual transactions. In the CWS/CMS architecture view, a transaction may encompass many business processes.
- Support for alternative devices is limited under the current architecture.
- No clear separation exists between business and user interface logic on the desktop.
- The current “Open Case” design (bringing all case data down to the desktop) does not work in a portable or alternative device environment.
- The current software distribution mechanism cannot effectively be used to support laptops over lower speed communication lines.
- The systems integration architecture, which provides for interaction among system components, is technically outdated.
- Counties require more granular access control roles and some counties have more stringent security needs particularly related to system login and password policies.

All of the above technical problems contribute to higher maintenance and operations costs. As presented in Section 2.9.1 – System Savings, system savings in excess of \$33M can be achieved through decommission of the current CWS/CMS. A new system provides the opportunity to address the business problems cited in Section 2.2 – Business Problems and Opportunities more economically.

2.4. BUSINESS OBJECTIVES AND FUNCTIONAL REQUIREMENTS

At the highest level, the State and counties seek, through their child welfare programs, to protect children from abuse and neglect, support and help families to care for their children safely, and enhance well-being outcomes for all clients served. This mission drives the business needs, objectives, and functional requirements of the New System project. The measurable objectives and requirements are shown in Table 1, Business Objectives.

Table 1 - Business Objectives

PROBLEM/OPPORTUNITY	OBJECTIVE(S)	REQUIREMENTS
Data Entry and Workflow	<ul style="list-style-type: none"> • Reduce average system wait time by 75% • Achieve 2% reduction in worker time for entire caseload • Reduce Foster Care Overpayments by 10% 	<ul style="list-style-type: none"> • Supports county-customizable automated workflow designed to move cases seamlessly through multiple phases and work units • Supports layered system access and data views based on roles (authorization) • Provides for workload management, prospective scheduling months or years in advance, and productivity reporting • Utilizes full complement of system tools to enhance data quality (e.g. pick lists, rule-based data checks, auto alerts, auto fill, etc.) • Provides structured assessment and decision support tools • Provides for user management of an online policy and standards library • Provides flexible user-definable querying and reporting capabilities
Limited Remote System Access	<ul style="list-style-type: none"> • Reduce the amount of time workers must be in transit to and from the office to obtain or update data by 4 hours per social worker per week • Enable workers to be productive in “virtual offices” 	<ul style="list-style-type: none"> • Provides the capability for accessing and entering information from the field via the Internet (or for offline data entry and accurate subsequent data upload to the system) • Supports web browser access to the DTS network via non-dedicated hardware devices • Enables wireless communication
Document Storage	<ul style="list-style-type: none"> • Meet required document storage requirements 	<ul style="list-style-type: none"> • Supports the storage, access, and management of multiple types of files, including photographs and scanned images • Provides seamless automated form and letter generation utilizing user-defined database elements • Supports layered system access and data views based on roles (authorization)
Optimistic Concurrency (OC)	<ul style="list-style-type: none"> • Reduce OC incidents by 80% 	<ul style="list-style-type: none"> • Supports concurrent work by multiple authorized workers on the same case
SACWIS Title IV-E	<ul style="list-style-type: none"> • Reduce average case processing time 	<ul style="list-style-type: none"> • Supports automation of eligibility determination through two-way

PROBLEM/OPPORTUNITY	OBJECTIVE(S)	REQUIREMENTS
Eligibility Determination	for eligible cases by 15 minutes per case <ul style="list-style-type: none"> • Reduce average data entry time by five minutes per case 	interfaces <ul style="list-style-type: none"> • Supports two-way interfaces among a variety of related systems • Supports cost-effective interface development and code reuse
SACWIS Adoptions Case Management	<ul style="list-style-type: none"> • Reduce average case processing time by six hours per case • Reduce average time for routing forms by ½ hour per case • Reduce average forms completion by six hours per case • Reduce length of stay related payment by 15 days, for eligible cases 	<ul style="list-style-type: none"> • Implements SACWIS requirements for automated adoptions case management • Integrated adoptions case management
SACWIS Title IV-A (TANF) Interface	<ul style="list-style-type: none"> • Reduce average research time by five minutes per case 	<ul style="list-style-type: none"> • Supports two way interfaces so that data elements that already exist in other systems automatically populate relevant fields in the new system • Supports two-way interfaces among a variety of related systems • Supports cost-effective interface development and code reuse
SACWIS Title IV-D (Child Support Enforcement) Interface	<ul style="list-style-type: none"> • Reduce average research time by five minutes per case 	<ul style="list-style-type: none"> • Supports two way interfaces so that data elements that already exist in other systems automatically populate relevant fields in the new system • Supports two-way interfaces among a variety of related systems • Supports cost-effective interface development and code reuse
SACWIS Title XIX (Medicaid) Interface	<ul style="list-style-type: none"> • Reduce average research time by five minutes per case 	<ul style="list-style-type: none"> • Supports two way interfaces so that data elements that already exist in other systems automatically populate relevant fields in the new system • Supports two-way interfaces among a variety of related systems • Supports cost-effective interface development and code reuse
Technology Problems and Opportunities <ul style="list-style-type: none"> • Untimely System Updates 	<ul style="list-style-type: none"> • Reduce current system operational charges by at least 20% 	<ul style="list-style-type: none"> • Meets all current CWS/CMS technical, functional, and administrative requirements • Uses browser-based architecture • Supports intuitive flexible navigation

PROBLEM/OPPORTUNITY	OBJECTIVE(S)	REQUIREMENTS
<ul style="list-style-type: none">• System Architecture• Systems Integration• System Security	<ul style="list-style-type: none">• Reduce program-related system change backlog by 20% in the first year	<ul style="list-style-type: none">• Supports batch uploads wherever feasible• Allows for rapid automation and replication of successful pilot efforts• Supports map-based resource searches• Supports map-based field service route planning• Supports maintenance of resource status data by resources themselves (e.g. over a secure internet connection)• Incorporates a robust context-sensitive help function

2.5. ALTERNATIVES ANALYSIS

As detailed in the TAAA Report (Appendix A), based on high-level business requirements (e.g., unfulfilled SACWIS functions, mobility, remote access), each alternative scenario was developed to conduct like-to-like comparisons among the alternatives. Based on this scenario modeling, each of the three alternatives was deemed “feasible” in terms of meeting the mandatory business requirements of the State. The following three alternatives were analyzed in detail:

Alternative 1: Current System	<ul style="list-style-type: none"> • This alternative proposes that the State continue to maintain and upgrade the current CWS/CMS within the limits of the current technical architecture employed by CWS/CMS.
	<ul style="list-style-type: none"> • In Alternative 1, it is assumed that no major technical application architecture changes will be made to the current CWS/CMS application beyond those required to meet programmatic, legislative, and regulatory needs.
	<ul style="list-style-type: none"> • Under this alternative, the current CWS/CMS application will be modified to achieve full SACWIS compliance using the current architecture.
	<ul style="list-style-type: none"> • Optionally, pursuant to the Budget Act of 2004 (Chapter 208, Statutes of 2004), the alternative included analyses of both SACWIS and non-SACWIS implementations.

Alternative 2: Evolve Current System to Web Services Infrastructure over 8 Years	<ul style="list-style-type: none"> • This alternative proposes that the State continue to maintain and upgrade the current CWS/CMS but evolve the current CWS/CMS technical architecture to a web services-based infrastructure over time.
	<ul style="list-style-type: none"> • Functionality addressing California’s remaining unfulfilled SACWIS requirements would be designed, developed, and implemented under the proposed new web services-based infrastructure as part of the evolutionary process.
	<ul style="list-style-type: none"> • Optionally, pursuant to the Budget Act of 2004 (Chapter 208, Statutes of 2004), the alternative included analyses of both SACWIS and non-SACWIS implementations.

Alternative 3: Develop New Web Services-Based System	<ul style="list-style-type: none"> • This alternative proposes that the State procure vendor services to build a new fully compliant “California SACWIS” using a web services-based technical architecture.
	<ul style="list-style-type: none"> • Under this alternative, the State would continue to maintain and operate the current CWS/CMS until the new system is deployed.
	<ul style="list-style-type: none"> • Functionality addressing California’s remaining unfulfilled SACWIS requirements would be designed, developed, and implemented under the proposed new web services-based infrastructure.
	<ul style="list-style-type: none"> • Optionally, pursuant to the Budget Act of 2004 (Chapter 208, Statutes of 2004), the alternative included analyses of both SACWIS and non-SACWIS implementations.

2.5.1. Assessment Approach

Prior to the evaluation of alternatives, the TAAA team developed a formal evaluation framework to assist with scoring and ranking the three alternatives. The criteria that formed this framework were based on business drivers that were agreed-upon by the CWS/CMS Oversight Committee and CDSS Management team during several working group sessions. By employing the evaluation framework, the TAAA team was able to analyze and rank each alternative within five major areas:

- **Business** – This category carried 20% of the total weighting and was comprised of the criteria surrounding the ability of each alternative's architecture solution to accommodate SACWIS and business functionality, support outcome based operations, and support Child Welfare Services program strategy; usability of the system on each architecture; ability to enable remote system access; and ability to support business operations.
- **Technical** – This category carried 20% of the total weighting and was comprised of the criteria surrounding the ability of each alternative's architecture to:
 - Serve as a single system of record.
 - Function as a single integrated system.
 - Easily scaled to accommodate user, functionality, or system growth and easily managed and maintained (simplicity).
 - Provide support for core and non-core functionality.
 - Provide flexibility and extensibility to accommodate changing needs.
 - Provide architectural openness, such as non-proprietary frameworks and code; easily integrate and interface via standardized means.
 - Deliver new functionality (changes and enhancements) in a timely manner.
- **Total Cost of Ownership** – This category carried 25% of the total weighting and was comprised of the criteria evaluating the total ten-year cost, breakeven point, and timing of cash flows.
- **Time** – This category carried 15% of the total weighting and was comprised of the criteria associated with the time-to-benefit realization and the time for incremental delivery of benefits/functionality.
- **Risk** – This category carried 20% of the total weighting and was comprised of the criteria associated with the financial, technical, operational, competitive procurement, schedule, and implementation risks.

To ensure the best alternative was selected, using a measurable and consistent approach, the scoring process was performed in three phases.

- **Screening Process** – Each alternative was measured against the screening criteria. If all the screening criteria were met, the alternative passed and moved into the next scoring

phase. If any of the screening criteria was not met, the alternative failed but was still scored. Each of the three alternatives met the screening criteria which are as follows:

- Ability to accommodate Adoptions.
 - Ability to accommodate the Independent Living Program (ILP).
 - Ability to generate reports of outcome data.
 - Ability to track cases using a variety of data elements.
 - User Interface (help screens, user prompts, system navigation).
 - Workflow.
 - Ability to store pictures.
 - Ability to provide access to data and simultaneously ensure the adequate security and confidentiality of the data.
 - Ability to provide remote access.
 - Ability to support Personal Digital Assistant (PDA) and other mobile devices.
 - Ability to provide wireless access.
 - Enables county workflow flexibility.
 - Supports common program practice.
 - Scalability.
- **Ranking Process** – Each of the alternatives was compared one to another and assigned a ranking of 1, 2, or 3. A ranking of 1 means the alternative best met the evaluation criterion, 2 means second best, and 3 is third best. The alternative with the lowest numeric score was considered the best alternative.
- **Weighting Process** – After each alternative was ranked, a total was determined for each of the five areas, Business, Technical, Total Cost of Ownership, Time, and Risk. This total score was then weighted to determine the outcome.

Each technology alternative was analyzed for the ability to support both the current functionality and unfulfilled county business functionality, which includes the unfulfilled SACWIS requirements.

2.5.2. Findings

The evaluation process resulted in recommendation of Alternative 3 (continue maintenance and operations of the current CWS/CMS while simultaneously redeveloping a new SACWIS application using a web services-based technical architecture) best met the criteria in all

categories except for risk. Alternative 3 clearly provides the best implementation of the business and technical criteria with primary differentiating factors being the ease of overall maintenance and support; ease of supporting functional changes through an integrated, flexible, and extendable architecture; and openness of the architecture. Alternative 3 was ranked best in time for being able to reach full benefit realization with a completely redeveloped system (including the unfulfilled SACWIS and additional business functionality) within 36 months. Alternative 3 was also ranked as the best-cost option with the lowest ten-year TCO among all of the alternatives (Alternative 1 - \$1.49B; Alternative 2 - \$1.31B; Alternative 3 - \$1.17B²). Detracting factors include one-time development costs that are higher than Alternative 1 (Alternative 1 - \$120M and Alternative 3 - \$136M) and operational risks associated with the development and cutover to a new system and schedule and financial risks common to all large Information Technology (IT) projects. To mitigate these risks and to provide early delivery of existing business functionality, the TAAA team recommended that Alternative 3 be implemented as a redeveloped system, which will greatly reduce the initial requirements definition effort. This approach would produce a system that employs a look and feel consistent with the current interface to minimize user impact and includes the enhanced performance and flexibility provided by the new architecture. The development would include updates to address priority deficiencies defined by users and would establish the environment in which the additional county business needs (including unfulfilled SACWIS functionality) will be met.

Alternative 2 (continue to maintain and upgrade the current CWS/CMS but evolve the current CWS/CMS technical architecture to a web services-based infrastructure over eight years) ranked second based on its ability to meet the business and technical criteria with the introduction of an open and more flexible architecture. Detracting factors include the highest one-time development costs of all three alternatives (Alternative 1 - \$120M; Alternative 2 - \$183M; Alternative 3 - \$136M) and significant risks related to maintaining two systems across an extended period. Maintaining two systems includes impacting county worker workflow, the complexity of utilizing multiple user interfaces, synchronizing data between the two systems, and supporting redundant requirements. Alternative 2 also scored worst in time-to-benefit realization by being the last alternative to deliver the full benefits associated with its implementation. Another detracting point is that Alternative 2 is the only alternative that requires the support of two production systems and federal funding would only apply to the costs for one of them.

Alternative 1 (continue to maintain and upgrade the current CWS/CMS within the limits of the current technical architecture employed by the current CWS/CMS) ranked last in all evaluation categories except risk. Alternative 1 assessed as low risk as it represents an operational environment with mature processes and the degree of risk to implement additional functionality, including unfulfilled SACWIS functions, is lower than that of the other two alternatives. Detracting factors include highest overall cost (Alternative 1 - \$1.49B), less flexibility to deliver updates, limited ability to accommodate interfaces, inability to provide security at the level needed, and the complexity involved with new development efforts.

² The costs from the TAAA report will vary with figures displayed in the PAPD as the strategy for implementation has changed. For example, increase in number of staff, the Data Warehouse and Remote Access tasks have been moved into other APDUs, etc. TCO costs will be updated in the IAPD.

2.5.3. Recommended Alternative and Selected Approach

Analysis and evaluation resulted in Alternative 3 receiving the best overall ranking and highest score among the alternatives. The TAAA team recommended that the State pursue this alternative based on the detail analysis presented in Appendix A, the TAAA Report. Overall, Alternative 3:

- Provides the best solution to meet the current and future needs for the delivery of child welfare services.
- Establishes a new strategic technology direction that meets the needs of county, State and federal stakeholders.
- Provides for the lowest TCO for SACWIS automation.
- Promotes open competition for the procurement of goods and services.

The TAAA team further recommended that the State act to implement the unfulfilled SACWIS functionality based on the priority of the business needs defined by the current CWS/CMS users. In particular, the Adoptions case management functionality and automated interfacing of information between systems will provide social workers and management with significant improvement in the capture, processing, and reporting of case data, resulting in greater efficiency in service delivery and improved quality of data reporting. The State's implementation of the unfulfilled SACWIS functions will:

- Provide the best solution to meet known business requirements for the delivery of child welfare services and provides social workers with the necessary tools to ensure child safety, child and family well-being, and permanency for the child.
- Lay the foundation for future SACWIS completion
- Result in a lower TCO for SACWIS automation due to federal financial participation.

Though the State has the option of deciding not to fulfill one or all of the remaining SACWIS functions, the decision is clear to move forward based upon the business need, financial justification, and overall State strategy for the well being of the children.

2.5.3.1. Conceptual System Architecture

The target architecture will be a web services-based Service Oriented Architecture. The SOA represents an advance in development strategies for applications. As the Internet and local intranets provide greater connectivity, options for the distribution of applications and new methods for envisioning "how" applications work have evolved. The new architecture will enable the State to define its essential services to meet its core business needs efficiently, and to adapt rapidly to changing business conditions. Once these core services are implemented, the State will be able to call upon any authorized application to access and analyze data, build new business models, or provide data or features that make that application immediately pay back its investment.

The State will implement on application server suites that will be the basic infrastructure for deploying the next generation application functionality in an SOA. All redeveloped functionality,

including the four unfulfilled SACWIS technical requirements developed in the new environment, will be deployed in a browser-based system architecture available to the social worker through a web browser. With the deployment of the new architecture, the need for tight control of the workstation image is minimized, as the application only requires a browser to execute. The diagram on the following page illustrates the overall architecture the State will employ to deliver child welfare services.

By moving to a browser-based application, the system will no longer store updates to case data locally. This change in architecture also removes one of the biggest problem areas of the current system, the “optimistic concurrency” problem. Additionally, the browser-based services cannot hold on to or store client information while moving from application screen to screen. This architectural change forces common case information to be persisted in the database and reloaded when moving to a new screen. This will reduce redundant data entry and improve workflow.

Implementing a target architecture that embraces and utilizes open standards, the New System will provide greater opportunities for the State to explore a strategy that employs more commercial off-the-shelf solutions to meet changing business needs. Reducing dependencies on proprietary solutions allows for greater technology competition, product choices, and client platform technologies.

The following diagram illustrates the overall architecture the State will employ to deliver child welfare services.

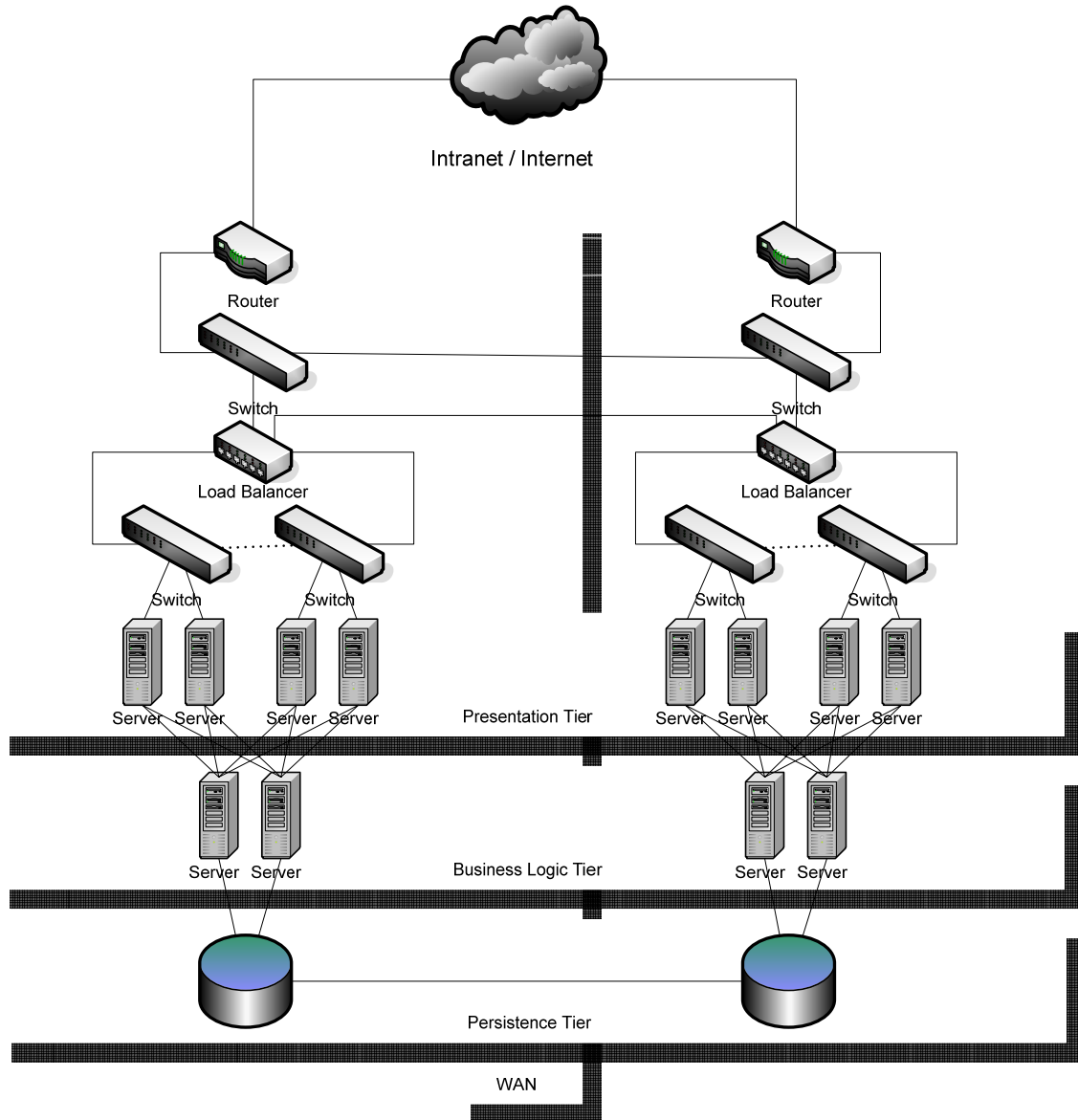


Figure 2 – Conceptual System Architecture

2.5.3.2. System Architecture, Technical, and Hardware Requirements

The following describes the requirements associated with the system architecture, technical components, and system hardware that will comprise the complete infrastructure for the New System.

2.5.3.3. *New System Architecture Requirements*

The following describe the high-level architecture requirements for the New System:

- **Application Coupling** – Application coupling describes the integration between functions of separate systems and sub-systems necessary to facilitate data exchange. The New System and sub-systems should facilitate data exchange while loosely coupling the functions of the disparate components. In addition, access to data should occur according to the established parameters and security requirements of the system that hosts the data. The New System will:
 - Be designed in a modular fashion to minimize maintenance costs and maximize system life expectancy.
 - Not be tightly coupled with other application systems.
 - Retain control over any access to its data and functions. This is particularly important in interfaces with agencies outside the functional and process boundaries of the New System.
 - Provide the ability to exchange electronic information using industry-wide Electronic Data Interchange practices such as Extensible Markup Language (XML).
- **Middleware** – A middleware messaging control interface is desired to provide a single point of contact, allowing for the exchange of data between the New System and external systems as well as internal communications. The New System must provide the capability to move data through middleware messaging whenever the data crosses a system or process boundary. The middleware component's message transport must be based on a standard protocol and be capable of remote monitoring and tuning.
- **Application Software Languages** – Any application software that needs to run at both the host and any other tier of the New System should be portable between the host and the appropriate tier. That is, if code executes at more than one tier, it will be developed in such a manner that changes to the code on one tier are propagated by automated tools and without manual assistance or intervention to the other tiers without the need for re-coding the same changes.
- **Network Management and Control System** – The New System must provide a network management and control system. The network management and control system must be based on a standard protocol and be capable of remote monitoring and tuning of each device in the New System (i.e., workstation, printer, hubs). This network management and control system must be capable of interfacing with:
 - Help Desk software to automate the identification process of any network node in which a problem may occur.
 - Software distribution software.
 - Network hardware/software-monitoring tools, as needed.

The network management and control system, including all resultant reports, data, etc., must be accessible for review and independent analysis.

- **Database Management System** – The New System database management system must incorporate relational functions and capabilities and should enforce declarative referential integrity as the mechanism to maintain relationships for information in tables. This will help ensure that actions such as changes and deletes on entity entries are correctly applied to all associated table entries to prevent orphaned rows in those tables. Logical analysis of New System databases must permit normalization to the third form. However, physical database implementation does not require normalization to this degree, with the recognition that practical considerations such as volume, size, performance, etc. can be overriding.

The State and counties desire a highly integrated and efficient database management system that will facilitate processing, and generally provide the lowest possible ongoing cost in terms of both dollars and maintenance time. New System requirements for a database management system include:

- The ability to handle growth in data storage needs over time without noticeable degradation in performance.
- Relational functionality.
- Referential integrity functionality.
- Support of the current Federal Information Processing Standard (FIPS) for Structured Query Language (SQL).
- Support of industry standard data access methods such as: Open Database Connectivity (ODBC) or Java Database Connectivity (JDBC).

While not a specific requirement, a database management product that can be ported between platforms is desirable.

- **Audit Trails and History of Data Changes** – Audit trails must be available to trace user and New System-initiated actions for all screen views, as well as update and inquiry transactions. The audit trails must be available for on-line inquiry for up to 12 months after the last auditable action on a case. No modification will be permitted to audit trail data. Audit trails may be stored off-line on machine-readable media after 12 months from the last activity on a case or client.

The New System must provide point in time display of all data for audit and verification purposes. A history of data elements to be jointly agreed-upon during the design phase, such as address, social security number, and name, must be maintained. The number of occurrences to be maintained will be based upon entity relationship analysis and the business need as determined by the State and counties.

- **Graphical User Interface** – A Graphical User Interface (GUI) will be integrated into the presentation design of the New System at the workstation/laptop level. The online portion of the New System will incorporate the common features of a GUI, including but not limited to, pop-up windows, pull-down menus, pointing device support, and the use of “hot keys” and “shortcut keys” as the keyboard equivalents of mouse clicks. The GUI will be current with state-of-the-art technology when the New System begins the design phase. It should adhere

to an industry standard, such as Microsoft GUI Standards or the W3C Web Content Accessibility Guidelines, along with the Americans with Disabilities Act (ADA) Level 1 regulations, as approved by the State and counties.

- **Email Integration** – The New System should include a transparent, seamless integration of any email solution with any county email systems already in place. All New System users must be able to transparently send and receive email and attachments with all other New System users, as well as non-New System users in their county. All New System users must be able to access shared county address books from the New System. Additionally, all New System users must be able to perform scheduling functions from the New System with other non-System users in their county.
- **Reporting** – The New System must support the creation, display, and printing of standard reports that are easily modifiable by State or county programming staff. It must also be capable of remote printing while maintaining system security and confidentiality. Primary reporting functionality, including ad hoc and statistical reports will be included.

2.5.3.4. Technical Requirements

The following describes the technical requirements for the New System:

- **New System Performance Requirements** – In order to accommodate the State's and counties' need to process and access information about clients, the New System will be highly reliable, although not absolutely fault tolerant. The maximum acceptable downtime for the New System is 72 hours. A hardware platform supporting the New System should deliver high reliability and availability. Additional requirements include:
 - The New System must provide tools that allow changes to be made to improve system performance.
 - The New System must provide the ability to collect, as needed, technical performance metrics based on a variety of technical parameters.
 - The New System must permit online transactions while batch processing is occurring.
 - A copy of the production database should be maintained to guard against disk drive crashes.
 - Replacement hardware must be available within 24 hours.
 - The New System's database must have the ability to journal (transaction logging) to facilitate recovery after power interruptions or other processing abnormalities.
 - The New System must provide the tools to monitor, in a single user interface, all aspects of system performance as required for capacity planning.
- **Security Requirements** – The New System must have comprehensive application security along with a robust security infrastructure. The New System base application will meet the following security requirements:

- Provide the ability to maintain user access rights to the system.
- Provide the ability to maintain role-based access.
- Provide the ability to maintain access to functional processes such as batch uploads.
- Provide an audit trail for all changes to database information.
- Provide the ability to maintain passwords.
- Provide the ability to prevent unauthorized users from accessing the system.
- Provide an audit trail for all changes to user access rights.

The New System base security infrastructure will meet the following requirements:

- Provide a secure method of transmitting electronic information.
- Provide security of all information that is maintained by the system.
- Prevent authentication data from being easily obtained by unauthorized persons.
- Provide security for all information assets utilized for Disaster Recovery and Operational Recovery plans.

2.5.3.5. *Hardware Requirements*

The following describes the hardware requirements for the New System:

- **General Requirements** – Vendors responding to the State’s procurement documents will be asked to propose whatever make and model office hardware they deem necessary to meet the requirements of the development and implementation teams. All servers and communications hardware must be protected by uninterruptible power supplies (UPS). Hardware will be new equipment, widely used and state-of-the-art at the time of hardware installation, since hardware technology may improve substantially by the time the New System hardware is scheduled to be delivered. Because the New System will be developed using a web-based architecture, little or no local office hardware will need to be replaced. The rollout cost estimates in this document do not include local office hardware.

- **Workstations** – Workstations should be adequately configured to support the requirements of the development and implementation teams.

Workstations must at a minimum consist of a widely used 32-bit operating system or better, and LAN connectivity capable of handling a bandwidth of 100 Mb/second or better. The workstation Central Processing Unit (CPU) must:

- Be in current production at the time of delivery.
- Be generally available to personal computer (PC) manufacturers.

- Be positioned for future upgrade capability.

At a minimum, 17-inch color monitors must be included, as well as keyboards and pointing devices. Monitors must be widely used and state-of-the-art at the time of installation. Monitors must comply with the applicable Industry Standards Organization (ISO) and ADA standards for emissions and eyestrain.

- **Laptops** – Rollout cost estimates in this document assume that 25% of the staff on the development and implementation teams will require laptop computers. Laptops should have the same functional and performance capabilities as workstations, with the exception of transmission time over phone lines. This will allow project staff to access their work remotely in the same manner as a regular workstation.

The laptop computer should support a secured dial-in capability using industry standard methodologies such as “smart cards” with the integration of dial-in to other security functions, dial-back, or a combination of methodologies. The selected vendor will be responsible to ensure appropriate network security and prevent intrusions from unauthorized external dial-ins to production systems.

- **Local and/or Enterprise Servers** – The selected vendor will provide local servers and/or enterprise servers and related hardware necessary to meet New System requirements. Servers must be widely used and state-of-the-art at the time of installation and installed with Redundant Array of Inexpensive Disk (RAID) type or more advanced technology. The selected vendor is expected to propose varying server configurations to support smaller and larger local office configurations. Workstation communication with the host and staging of data may require participation from the local servers. Specific roles and functions performed by servers will be determined by the eventual detailed design of the New System from the selected vendor.

All servers will be installed with excess capacity beyond which is required to run the New System within performance requirements.

- **Local Area Networks (LANs) & Wide Area Networks (WANs)** – LANs will connect workstations to the local servers and printers, as needed, and will support communications between workstations and the host. WANs will connect multiple LANs within a county, and all counties to the DTS network. The design of the LANs and WANs will depend upon the selected vendor’s technical architecture and characteristics of the New System’s approved design.
- **LAN Connectors (Switches)** – All LAN Connectors, through the use of switches, must capable of effectively handling a bandwidth of 100 Mb/second or better.

2.5.4. Interface Requirements

Interfaces play an important role in any computer system. The New System’s interface functions will be responsible for gathering and referring client data vital for effective and efficient execution of programs. Interfaces must not only supply the information needed by workers, but also must prove to be a reliable, accurate, and timely source of information.

In constructing interfaces, a balance between facilitating the exchange of information, creating dependencies between separate systems, and interface cost must be considered. While it is advantageous to highly integrate systems, data integrity risks, security concerns, and

maintenance issues must also be considered. For example, maintenance issues may arise should one system change or be replaced, or another agency become responsible for its operation. Additionally, data integrity could be jeopardized if an external system has update access to the New System's data.

Interface data security must also be addressed in implementing the New System since information retrieved or referred through many of the New System's interfaces could be sensitive. Securing this data will be required at federal, State, and agency levels to help ensure the continued information flow while preventing data misuse. While the interfaces themselves may be responsible for exchanging the data, other system functions are often responsible for requesting and displaying data provided via interfaces. These interface-related functions might require performing one or more of the following:

- An audit trail of data requests.
- An audit trail of who viewed sensitive data.
- Limiting the ability to request and view information to users responsible for the client/case.
- Restricting users from requesting and viewing data on certain persons such as friends, family, and celebrities.

Interface data security must not only consider data access available to system users, but also the system's programmers, database administrators, and other systems support staff. Security measures outside of the application that restrict, track, and prevent unauthorized access to sensitive data that is stored and transmitted must be addressed in implementing the New System. One or more of the following security measures may be required to secure data from the New System's support personnel:

- An audit trail of personnel that access and change files containing sensitive data.
- File-level access permissions to prevent unauthorized use of sensitive data by systems support personnel.
- Interface transaction file encryption.
- Storage of interface transaction files in secure directories or other structures where access can be limited and controlled.

2.5.5. Interfaces Relevant to the New System

There are multiple interfaces for the communication of data between the New System and other systems. Data files, extracts, and terminal emulators are considered interfaces in this document. Those interfaces that are data files or extracts provide asynchronous capability to update either the application's database or other systems depending on whether it is inbound or outbound from the New System's perspective. The following segments the interfaces into the categories of federal, statewide, and county-specific.

- **Federal System Interfaces** – The following table describes the federal system interfaces relevant to the New System.

Table 2 – Federal System Interfaces

SYSTEM	DIRECTION	DESCRIPTION	INTERFACE	FREQUENCY
AFCARS	Outbound	Adoption and Foster Care Analysis Reporting System (AFCARS) is a federally mandated national foster care and adoption system that collects data on the children in the 50 states and the District of Columbia under the responsibility of the state IV-B/IV-E agency for placement in care.	One-way	Semi-Annually
NCANDS	Outbound	National Child Abuse and Neglect Data System (NCANDS) is a child abuse reporting program based on state participation	One-way	Annually

- **Statewide System Interfaces** – The following table describes the statewide system interfaces relevant to the New System.

Table 3 – Statewide System Interfaces

SYSTEM	DIRECTION	DESCRIPTION	INTERFACE	FREQUENCY
Court Case Management System	Inbound / Outbound	The Judicial Council is developing statewide system interfaces for the Court Case Management System. This system should be implemented statewide by 2010-11.	Two-way	Daily
LIS	Inbound	Licensing Information System (LIS) is a centralized, statewide system utilized and maintained by the CDSS' Community Care Licensing Division (CCLD) to track all non-medical facilities and associated persons. CCLD licenses and maintains data regarding many different types of facilities, however, only those facilities related to child welfare services are extracted and sent to the New System.	One-way	Daily
LIS	Inbound / Outbound	Licensing Information System (LIS) terminal emulator located within the current CWS/CMS allows the PC user to log on and receive direct access to the LIS mainframe system operated by CDSS' Community	Terminal Emulation	On-demand

SYSTEM	DIRECTION	DESCRIPTION	INTERFACE	FREQUENCY
		Care Licensing (CCL). There is no data transfer between LIS and CWS/CMS when using the terminal emulator.		
MEDS	Inbound / Outbound	Medi-Cal Eligibility Determination System (MEDS) terminal emulator located within the current CWS/CMS allows the PC user to log on and receive direct access to the MEDS mainframe system operated by DTS. MEDS tracks eligibility and supports the delivery of health care services for the Medi-Cal program and the county Medical Services Program. There is no data transfer between MEDS and CWS/CMS when using the terminal emulator.	Terminal Emulation	On-demand

- **County-Specific System Interface Requirements** – The following table describes the county-specific system interfaces relevant to the New System.

Table 4 – County-Specific System Interface Requirements

SYSTEM	DIRECTION	DESCRIPTION	INTERFACE	FREQUENCY
WCMIS	Outbound	Welfare Case Management Information System (WCMIS) is Los Angeles county's central index for all county-provided social services.	One-way	Daily
Data Reporting System	Outbound	A data extract, for reporting purposes, will be provided to the counties.	One-way	Daily / Weekly

- **Desired Common System Interface Requirements** – The State's desired system interfaces are to enable a single standard, two-way interface to send/receive data from Title IV-A/TANF, Title IV-E, Title IV-D, Title XIX, and Financial Management.
- **County-Specific/Desired Interfaces** – The county-specific/desired common system interfaces relevant to the New System include, but are not limited to Foster Care / home licensing systems, Department of Justice (DOJ) Child Abuse Central Index (CACI), DOJ LiveScan, and DOJ Criminal Law Enforcement Tracking System (CLETS).

2.5.6. Security Approach

2.5.6.1. *Anticipated Application Security*

All System software, regardless of the platform or tier on which it is run, is designed, programmed, maintained, and controlled by centralized staff under authority of the New System project. All software will be backed up appropriately on a regular schedule.

- **Security Terms** – The New System will contain security architecture with a layered approach to address overall security within the environment. The security approach is structured according to a standard security model that addresses the following processes:
 - **Identification and Authentication** – This is the process of verifying a user's identity through any one of several means, and based on that identity, providing the user a specific level of access to the system.
 - **Access Control** – This is the process of granting a user or application the level of information and resources required for their job or business function.
 - **Physical Security** – This is the process of providing a physically secure environment for all resources and assets.
 - **Confidentiality** – This is the process of verifying that information or data has not been disclosed to an unauthorized individual or in an undesirable manner.
 - **Integrity** – This is the process of verifying that the information is authentic, accurate, and complete, without undesired or unauthorized changes.
 - **Auditing, Logging, and Alerting** – This process tracks selected security-related events (such as logins, updates or changes to data), storing the audit trail information in a system-protected file to provide a means of accountability, and notifying appropriate individuals of security issues that require response.
- **Security Management** – The State will manage the system and network security tools, platforms, and procedures. At the county office level, local personnel will be employed for security administration. Policies, procedures, standards, and guidelines will be created and updated to ensure that appropriate security measures are applied consistently. Central information security personnel from CDSS, the project, local security personnel, and business line representatives from each county will jointly develop the policies, procedures, standards, and guidelines. The documentation produced will be distributed electronically to all security and operations staff.
- **Security Design Overview** – The security design involves adhering to the following policy statements that ensure a secure architecture is implemented:
 - All security measures must take into account the portion of the TCP/IP protocol that is used in any particular environment.
 - All federal and State data privacy and security laws will be supported and implemented.

- All data in-flight must be encrypted to ensure its privacy and security.
 - All data at rest that could potentially expose a person's identity or health or financial information must be encrypted. It is preferred that in addition to an individual's confidential data at rest be encrypted, that it be physically and logically separated from their non-confidential data.
 - The networking environment will be grouped into network classifications—local trusted, local untrusted, remote internal, and remote untrusted. All remote connections to unmanaged networks fall within the remote untrusted classification. Remote connections to the New System managed networks fall under the remote internal trust classification.
 - Each network classification must be separated into distinct network domains (i.e., a specific project LAN segment is a single distinct network domain).
 - Each network domain must reside on its own LAN segment.
 - Communication between network classifications must be controlled by a firewall.
 - Untrusted traffic from the Internet is only allowed into a protected segment of the network called the demilitarized zone (DMZ). The DMZ is a computer or small sub-network that sits between a trusted internal network and an untrusted external network, such as the public Internet.
- **Security Components** – The new System requires a flexible, distributed, network access model that leverages the benefits of centralized management and resource pooling. To leverage this distributed model, a layered approach - or defense in depth - to security will be used. Defense in depth is a “best practices” strategy in that it relies on the intelligent application of existing techniques and technologies. Security components and techniques include:
- ***Defense in Multiple Places*** – as security breaches can occur from multiple directions - both inside and out; security is required in more than one "place".
 - ***Layered Defenses*** – having nested firewalls, in particular firewalls from different vendors, at process or tier boundaries.
 - ***Specific Security Strengths Where Appropriate*** – it is often more suitable and effective to deploy stronger security at network boundaries than on desktops.
- **Audit and Control** – The new System will contain a sufficient number of controls to maintain the integrity of the data and information involved. These controls fall into three types.
- ***Preventive Controls*** – Controls designed to prevent errors and unauthorized events from occurring.
 - ***Detective Controls*** – Controls designed to identify errors and unauthorized transactions that have occurred in the system.

- **Corrective Controls** – Controls designed to ensure the problems identified by the detective control are corrected.

These controls must be in place at all appropriate points of processing.

2.5.7. Disaster Recovery and Contingency Planning Approach

Adequate back-up and recovery will be incorporated into the New System design for all processing platforms and will coordinate with DTS disaster recovery plan requirements. The disaster plan will address a major disaster in which the computer installation and software is destroyed or damaged or a failure occurs with the network, software, or local equipment. Additional information will be available pending the outcome of ongoing DTS disaster and contingency procurements.

As an adjunct discussion to disaster recovery and contingency planning, the architectural design takes advantage of redundant and load sharing equipment that is geographically dispersed. By splitting the load and processing capabilities of the New System geographically, the project provides for application availability even if one location is incapacitated. The application remains available, with a reduced capacity. If needed, the development and training environments could be called into duty to provide additional processing capacity.

2.6. COST/BENEFIT ANALYSIS

The TAAA team estimated the ten-year costs for each alternative considered and compared costs and benefits among alternatives. The TAAA team was very conservative in its approach to estimating costs. The team used known costs that had been developed previously for feasibility studies and APDUs, where appropriate, in lieu of re-estimating costs. Adjustments to the baseline CWS/CMS costs were only made to reflect anticipated growth. Growth for each area was based on financial trends over the past three years. Finally, in accordance with the State's business direction to implement the unfulfilled SACWIS functionality, all costs presented include the costs to implement the SACWIS functionality and were analyzed from that perspective. The detailed cost benefit analysis findings from the TAAA report can be found in Appendix B, TAAA Cost/Benefit Analysis. The following table illustrates the total ten-year costs and benefits for each alternative.

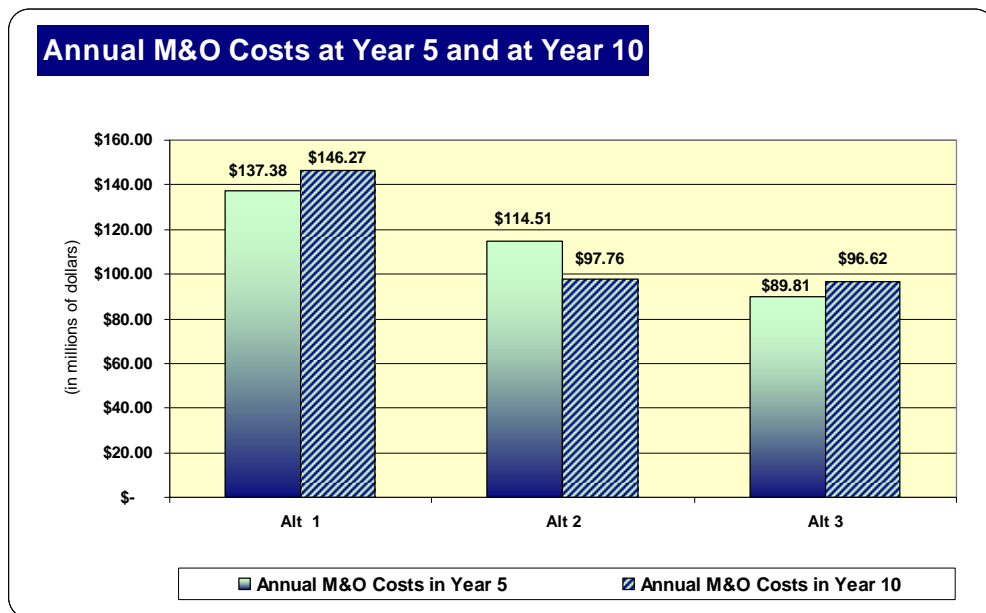
Table 5 – Total Ten-year Costs and Benefits for Each Alternative

(all costs shown in millions of dollars)	Alt 1	Alt 2	Alt 3
One-Time Costs	\$ 119.69	\$ 179.06	\$ 136.46
Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ 107.99	\$ 67.18
Additional Costs to Develop Adoptions Functionality	\$ 39.27	\$ 19.82	\$ 20.34
Additional Costs to Develop SACWIS Functionality (FM, IV-E Eligibility, Interfaces)	\$ 19.00	\$ 17.29	\$ 15.13
Additional Costs to Develop New Business Functionality			
- Additional Functionality (300 Function Points Per Year)	\$ 42.97	\$ 18.01	\$ 18.04
- Mobility/Remote Access	\$ 3.07	\$ 3.00	\$ 3.00
- Data Warehousing	\$ 15.38	\$ 12.95	\$ 12.78
On-Going Costs (Total for Ten-Year Period)	\$ 1,367.31	\$ 1,119.79	\$ 1,032.76
Current On-Going Costs	\$ 1,281.32	\$ 580.78	\$ 386.96
New On-Going Costs to Maintain New Architecture and Re-Developed Functionality	\$ -	\$ 460.86	\$ 578.31
Additional On-Going Costs for Adoptions Functionality on New Architecture	\$ 13.50	\$ 12.12	\$ 11.06
Additional On-Going Costs for New SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ 9.66	\$ 8.31	\$ 8.46
Additional Costs to Maintain New Business Functionality			
- Additional Functionality (300 Function Points Per Year)	\$ 7.51	\$ 3.80	\$ 3.80
- Mobility/Remote Access	\$ 17.46	\$ 16.16	\$ 8.04
- Data Warehousing	\$ 37.86	\$ 37.77	\$ 36.12
Total Benefits Realized Over Ten-Year Period	\$ 854.41	\$ 754.62	\$ 947.96
Current Savings	\$ 795.99	\$ -	\$ -
Current System Savings	\$ 795.99	\$ -	\$ -
Increased Productivity	\$ 27.61	\$ 40.59	\$ 40.86
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ 0.76	\$ 1.03
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ -	\$ 12.22	\$ 12.22
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ 27.61	\$ 27.61	\$ 27.61
- Data Warehousing	\$ -	\$ -	\$ -
Program Savings	\$ 30.82	\$ 12.87	\$ 12.62
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ -	\$ -
Additional Benefits from Implementing Adoptions Functionality	\$ 2.97	\$ 1.73	\$ 1.48
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ 27.85	\$ 11.14	\$ 11.14
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -
System Savings	\$ -	\$ 701.16	\$ 894.48
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ 701.16	\$ 894.48
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ -	\$ -	\$ -
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -
Cummulative Net Cost/Benefits for Ten-Year Period	\$ (632.59)	\$ (544.23)	\$ (221.26)

**Costs and benefits shown in millions of dollars*

Both short- and long-term views of the financial impacts associated with each alternative are shown above. Short-term impacts are represented by the one-time costs, which for the analysis included system development costs. The combination of maintenance and operations costs and savings/benefits combine to represent the long-term impacts. The overall effect of both short- and long-term impacts factor into the cumulative net, which provides a measure of the overall financial attractiveness of each alternative over time.

- **Short-Term Financial Impacts** – When viewed in the short-term, Alternative 1 was the lowest cost alternative. Because Alternative 1 was based on expanding and enhancing the current operating system, only costs associated with the new components affected the overall total; hence, the least amount of additional investment was required. However, it is important to note that while the total cost for Alternative 1 was less than the other alternatives, the cost to develop the additional SACWIS functionality (i.e., Adoptions, financial management, IV-E eligibility, and interfaces) was found to be 50% more expensive in Alternative 1 than in either Alternative 2 or 3. Similar differentiating cost factors were also associated with the cost for the ongoing addition of business functionality at the rate of 300 function points per year. The cost to implement the additional business functionality was found to be 42% higher in Alternative 1 than in Alternative 2 or 3. The cost to add mobility/remote access and data warehousing to any of the architectures analyzed is neutral in that no factors influence a higher or lower cost for any alternative.
- **Long-Term Financial Impacts** – When the long-term perspective was taken, Alternative 3 resulted in the greatest overall financial return. In fact, Alternative 3 outpaced the return (cumulative net) of the next most attractive option (Alternative 1) by approximately \$323 million over the ten-year period. This substantially greater return was primarily a result of the quicker realization of benefits. The additional difference in the overall financial return associated with Alternative 3 (in comparison to Alternative 1) is because of lower maintenance and operations costs that would result from efficiencies of moving to an architecture that is more efficient to maintain and operate. It is one perspective to look at the total ongoing costs for the entire ten-year period. Another perspective is to look at the annual ongoing costs in Year 5 and again at Year 10 after all three alternatives have fully stabilized. The chart below illustrates the ongoing costs at Years 5 and 10 for each alternative.



**Costs shown in millions of dollars*

Figure 3 – Annual M&O Costs at Year 5 and at Year 10

The cumulative benefits obtained over the ten-year period were charted against the cumulative total ten-year costs (one-time and ongoing) for each alternative. The net result of comparing cumulative costs with cumulative benefits should be at some point in time, the benefits will outpace the costs, and thus reach a breakeven point for the overall investment. In the analysis conducted, none of the alternatives reached a breakeven point before the end of the ten-year period. However, because the cost/benefit curve for Alternative 3 appeared to be closing, the TAAA team extrapolated costs beyond the ten-year period to determine when breakeven would occur for this alternative. The TAAA team determined that Alternative 3 will reach a return on investment in April 2022. Alternative 1 and 2 never reach a breakeven point.

Based on multiple factors considered in the Alternatives Analysis (the cost/benefits analysis being only one factor), the TAAA team recommended Alternative 3 with the development of the unfulfilled SACWIS requirements and the starting of critical functionality to meet immediate business needs earlier than originally identified. The State believes that re-architecting the system can significantly reduce maintenance costs, reduce the time and costs required for system upgrades, provide improved functionality and user access, allow the use of commercial off-the-shelf software, allow the incorporation of web service components, and produce an open system architecture that is significantly easier to support than the current CMS/CMS.

Since the completion of the TAAA report, the State has updated its strategy for implementing Alternative 3. California is now starting its remote access and data warehousing efforts as separate projects. The New System will be developed using a web services-based technical architecture and include 1) the re-development of current functionality on the new architecture and 2) development of the four unfulfilled SACWIS requirements on the new architecture. Where appropriate, improvements will be made during the re-development of the current functionality to address business and user needs. The New System will include improvements that take advantage of the capabilities of the new architecture, while not changing the way the State and counties conduct business. The current CWS/CMS will be maintained during the development and decommissioned upon statewide implementation of the New System.

2.7. GLOBAL ASSUMPTIONS AND INFORMATION SOURCES

2.7.1. Global Assumptions

The following are the key global assumptions:

- Realization of benefits will not be achieved until 12 months after the functionality has been implemented. The only exception is system savings, which includes the replacement of current systems. This benefit will be realized at the time the New System is implemented.
- All benefits drivers and variables were obtained from documented sources to ensure validity of benefits.
- The savings identified will be reinvested back into the CWS program to reduce the workload of the current social workers currently working overtime as documented in the SB 2030 report.

2.7.2. Information Sources

In addition to the data obtained from the State, statistical information used in this Cost Benefit Analysis was taken from the following sources:

1. American Humane Association. "SB 2030 Child Welfare Services Workload Study." April 2000. Available on the CDSS website, http://www.dss.cahwnet.gov/cdssweb/SB2030Chil_287.htm.
2. SFY 2005/06 Governor's Budget.
3. CWS/CMS. "Annual Advance Planning Document Update." December 2004.
4. CWS/CMS. "Annual Advance Planning Document Update." June 2003.
5. CWS/CMS. "Annual Advance Planning Document Update." October 1995.
6. CWS/CMS. "As-Needed Annual Advance Planning Document." November 2001.
7. CWS/CMS. "California Department of Social Services Title IV-E Eligibility Determination System Feasibility Study Report." June 2001.
8. CWS/CMS. "California Department of Social Services Expanded Adoption System of the Child Welfare Services/Case Management System (Expanded Adoptions System) Feasibility Study Report." December 2000.
9. CWS/CMS. "Expanded Adoptions Subsystem (EAS) Post-Implementation Evaluation Report (PIER)." October 2004.
10. CWS/CMS. "Pre-placement Preventative Services Emergency Response and Family Maintenance Activity Monthly Reports." June 2003.
11. CWS/CMS. "State of California's Go-Forward Plan." August 2004.
12. CWS/CMS. "Statewide Automated Child Welfare Information Systems SACWIS Review Guide Appendix B – OMB No.: 0970-0159." September 2004.
13. CWS/CMS. "Technical Architecture Strategic Plan (TASP)." April 2003.
14. CWS/CMS. "Technical Architecture Alternatives Analysis Report (TAAA)." March 2005.
15. CWS/CMS. "Business Trends: Optimistic Concurrency Report." June 2005.
16. CWS/CMS. "Usage Statistics for September 2004." Available on, <http://www.hwcws.cahwnet.gov/programres.asp>. September 2004.
17. CWS/CMS. Logicon, A Northrop Grumman Company. "SACWIS Functionality Analysis Report, Title IV-A Interface." July 2001.

18. CWS/CMS Northrop Grumman IT, Inc. "Task Report – Evaluation of State SACWIS Requirements Compliance for Child Welfare Services / Case Management System (CWS/CMS)." July 2004.
19. Office of Systems Integration. "Best Practices." Available on the OSI website, <http://www.bestpractices.cahwnet.gov>.
20. Needell, B., Webster, D., Cuccaro-Alamin, S., Armijo, M., Lee, S., Lery, B., Shaw, T., Dawson, W., Piccus, W., Magruder, J., & Kim, H. (2004). Child Welfare Services Reports for California. Retrieved "Counts of Children with one or more Referrals for October, 1, 2002 to September 30, 2003", from University of California at Berkeley Center for Social Services Research website. URL: <Http://cssr.berkeley.edu/CWSCMSreports/>.
21. Needell, B., Webster, D., Cuccaro-Alamin, S., Armijo, M., Lee, S., Lery, B., Shaw, T., Dawson, W., Piccus, W., Magruder, J., & Kim, H. (2004). Child Welfare Services Reports for California. Retrieved "1998-2004 July 1 Caseload Children in Child Welfare Supervised Foster Care by Placement Type for California", from University of California at Berkeley Center for Social Services Research website. URL: <Http://cssr.berkeley.edu/CWSCMSreports/>.
22. Needell, B., Webster, D., Cuccaro-Alamin, S., Armijo, M., Lee, S., Lery, B., Shaw, T., Dawson, W., Piccus, W., Magruder, J., & Kim, H. (2004). Child Welfare Services Reports for California. Retrieved "1998-2004 July 1 Caseload Children in Child Welfare Supervised Foster Care by Placement Type for Los Angeles", from University of California at Berkeley Center for Social Services Research website. URL: <Http://cssr.berkeley.edu/CWSCMSreports/>. Garmus, David & Herron, David. 2000. Function Point Analysis: Measurement Practices for Successful Software projects. Boston, MA: Addison-Wesley.
23. Reed, D.F., & Karpilow, K. A. (2002 November). Understanding the Child Welfare System in California: A primer for service providers and policy makers. Berkeley, CA: California Center for Research on Women and Families, Public Health Institute. Available on the CCRWF website, <http://www.ccrwf.org>.

2.8. QUALITATIVE BENEFITS

The New System will support a number of important child welfare program improvements that will contribute to basic program goals, performance measures, and outcomes of the program. The single most important improvement to be realized from the implementation of the new strategic technology direction for the New System is an incremental improvement in service to children and families and correspondingly in the counties' performance measures and outcomes. The goal is to improve upon the effective and expeditious handling of cases, which improves the safety, permanence, and well-being of children and families and allows social workers more time for quality interactions with children and families. This goal is one that will positively impact society and cannot always be quantified in dollar terms. If children and families become stable and productive members of society, the benefit is immeasurable. The incremental benefits that may be realized because of implementing the New System are:

- Increased Delivery of Services to Children and Families.

- Increased Delivery of Services in Adoption.
- Improved Efficiencies through Automated Interfaces.
- Improved Financial Management.
- Increased Benefits to Child Welfare Administration.
- Improved Credibility.
- Improved Usability.
- Increased Productivity.
- Open and Flexible Architecture and System Design.
- Improved Ongoing Maintenance.
- Improved Security/Confidentiality.

The sections below describe specific advantages associated with each of the program improvements.

2.8.1. Increased Delivery of Services to Children and Families

The core outcomes of CWS are 1) child safety, 2) child and family well-being, and 3) permanency for the child. To achieve these outcomes, caseworkers must be able to deliver timely and appropriate services. Today, caseworkers use the current CWS/CMS to document needed services, manage cases, and report program performance and outcomes; however, the current architecture and design does not lend itself to optimal case management. The New System, by contrast, will provide flexibility, remote accessibility, full SACWIS compliance, and overall increased usability. Its chief benefit will be its ability to enable caseworkers to provide better and timelier services to children and families by providing an automated tool that has flexibility, remote accessibility, full SACWIS compliance, and overall usability. The State expects that the New System will help case workers improve the lives of children and their families through:

- **Immediate Response** – Online statewide historical, referral, and case data will make it easier for staff to assess and respond to children at risk with more complete information in the decision-making process.
- **Improved Client Services** – Immediate access to the history of client assessments/service planning information will help with case decision-making and service delivery.
- **Access to Health/Education Passport** – Readily available medical and educational information will allow caseworkers, substitute care providers, and Public Health professionals to better manage the safety and well-being of children.
- **Expediency in Placements** – The ability to more readily manage the case and ensure required services are delivered will help move the child more rapidly into the most appropriate setting.

- **Increased Successful Outcomes** – Both federal and State child welfare services performance outcome measurements will be improved with a move to new technology. First, Child Welfare staff will be able to enter data into the system remotely and more efficiently giving them more time to visit families, coordinate services, address issues, and move children into safe and stable settings. Ready access to up-to-date information will continue to improve social worker decisions leading to better outcomes for children. The availability of remote access and ease of data entry will also improve the timeliness of information resulting in more accurate data measurements. Finally, access to information from other systems that serve the same families will enhance the capacity of the social worker to effectively craft and execute a multi-disciplinary case plan.
- **Modernized Social Work Practices** – The New System will support the modernization of social work practices by enabling social workers to access the New System and other critical information or systems via remote access. The ability to obtain and enter up-to-the-minute information will allow for more informed decisions during intake, and expedite service delivery to the family and increase child safety. Specific benefits include:
 - **Expanded Availability of Critical Information** – Improved remote access will provide an around-the-clock gateway to critical information such as referral history, current and prior placements, available placements, contacts, legal history of the dependent child, documentation of court ordered services, and education/health records.
 - **Mobile Workforce** – Mobile access will give social workers access to the system via PDAs, web browsers, wireless devices, and laptops. This will allow social workers in large and rural counties to spend more time doing social work in the field rather than traveling to the office to record information. Social workers will have the ability to immediately update and enter data anytime anywhere.

2.8.2. Increased Delivery of Services in Adoption

To meet the adoption needs of children; public adoption agencies begin working with the children, their birth parents, and potential adoptive parents shortly after the children enter foster care. This requirement is known as concurrent planning. These agencies would benefit by being able to use the New System to manage their case activities and record required adoption information on behalf of the child. The current process for recording required information for adoptive families on the current CWS/CMS application does not support the current business needs and does not meet the federal SACWIS requirements. The development and implementation of fully SACWIS compliant adoptions case management functionality within the New System will meet the needs of all stakeholders in the adoptions process. The new functionality will increase the delivery of services and directly correlate to improving the lives of children and their families by:

- **Providing Adoption Data** – The automation of adoptions will ensure that counties, CDSS, the Legislature, and the federal government all have necessary adoption information. The automation of adoptions will also continue to allow CDSS to administer the statewide program in a cost-effective way and perform functions such as Interstate Compact on Adoption and Medical Assistance, and Adoptions and Foster Care Automated Reporting System (AFCARS).

- **Improving Placement Matching** – The automation of adoptions will include automated placement matching functionality. This will help staff better match a child's specific needs and characteristics (culture, language, medical and behavioral needs, etc.) with available options while streamlining the process. This will result in a streamlined adoptive placement identification process, and fewer failed permanent placements due to a better match at the outset, thereby improving outcomes. This also helps counties meet legislative requirements for finding permanent placements for children and maintaining children in the most home-like, least restrictive placement. This will ultimately have an indirect effect on reducing the overall cost associated with placements.
- **Helping Families Achieve Program Goals** – Automation of adoptions case management will support the statutory requirement for concurrent planning and the program goal of permanency; will further the development of a consolidated home study process for foster and adoptive families; and will allow greater access to information necessary for post-adoption services. Each of these benefits will support families and potentially prevent adoption disruptions.
- **Increasing the Number and Timeliness of Finalized Adoptions** – Automation of adoptions will allow staff to streamline their work in fulfilling the complex requirements of the adoption process by reducing repetitive paperwork and documentation demands. Thus, the automated case management process will assist social workers in moving children through foster care and placing into adoptive homes more efficiently and effectively.

2.8.3. Improved Efficiencies through Interfaces

Federally mandated and federally-optional State-elected interfaces will help meet program goals, administer cases more effectively, and allow case workers to achieve better program outcomes more efficiently.

The planned two-way interface between the New System and the following systems described below will reduce the need for social workers to enter duplicate data into multiple systems, as well as the likelihood of introducing errors through manual data entry. Automated interfaces will also streamline routine tasks by no longer forcing social workers to lookup information on other systems. Finally, a two-way interface will support overall collaboration and information sharing within and among agencies.

- **Title IV-A: CalWORKs Program** – A Title IV-A interface with the New System will help case workers who receive abuse and neglect referrals to find identifying information about families and children who are subjects of these calls. Often reporters calling the hotline have incomplete or inaccurate information regarding families, so if the CalWORKs program knows the family, they can be located more readily and the safety of all children in the family assured.
- **Title IV-D: Child Support** – Providing a Title IV-D interface with the New System will help case workers make better placement decisions by locating parents to initiate services or pursue permanent placements for children, allow for the automated exchange of common case information, allow previously paid foster care dollars to be reimbursed and recouped, and capture required AFCARS child support data.

- **Title IV-E: Eligibility** – Providing an interface between the New System and the SAWS consortia systems, where much of automated IV-E eligibility information resides, will assist the CWS program in the following ways:
 - **Enhance Eligibility Determinations** – An interface will result in increased accuracy for federal and State-only determinations for Out-of-Home Care and Adoption Assistance Payments.
 - **Enhance Eligibility for Other Programs** – Exchange of data will provide information to more readily assess a child's eligibility for Medi-Cal benefits and this eligibility information will be available for substitute care providers who can assure that children in their care receive medical attention that they need.
 - **Review and Audit Eligibility Information** – Complete eligibility information will be available to county and State staff for independent review and audit, and will be available to case workers for the life of the case to allow more expeditious re-determinations.
 - **Increase in Consistency** – Automated Title IV-E information will ensure that the same rules are applied to all cases resulting in more consistent eligibility determinations.
- **Track Title XIX: Medi-Cal Program Information** – A New System interface with Title XIX data will help provide needed information to track eligibility for children in foster care and allow for the automated exchange of common case information.
- **Federally Optional, State-Elected Interfaces** – The ability to build interfaces between the New System and other State systems will achieve better program administration, integrated case management, better service delivery, and more readily achievable program goals. For example, interfaces could include courts and juvenile justice to more quickly move families through the judicial process and achieve permanency outcomes.
- **Facilitate Family Maintenance** – Interfaces between the New System and the four SAWS consortia systems will facilitate coordination of cash, Food Stamp, and Medi-Cal benefits when a child is returned home leading to more stable family dynamics and improved outcomes.

2.8.4. Improved Financial Management

The county financial management systems that currently support child welfare services are external to CWS/CMS, and force staff to manually process and manage information. Staff must look up information in the external system and then re-key it into the current CWS/CMS. The automation of financial management will support the efficient processes necessary to ensure accurate and timely authorization, processing, and reconciliation of financial records and transactions, with the following improvements:

- **Increase Accuracy of Payments** – Accurate payments will help ensure that children's financial needs are met. In addition, this automation will allow the State and counties to account more easily for Out-of-Home Care costs. It will allow counties to correlate financial information to the type of placement and any related supplemental payments.

- **Reduce Foster Care Eligibility Under and Overpayments** – Automation of the accounts receivable and payable system will ensure that underpayments and overpayments are reduced.

2.8.5. Improvements to Child Welfare Administration

The current CWS/CMS has had a major impact on child welfare service provision in California, as well as on the various constituency groups that care about children. Across the state and around the clock, the current CWS/CMS provides real-time access to comprehensive child and family case data. The New System will continue to improve on this functionality, particularly through its intended ease of use, as it will be accessible anywhere, from multiple devices, and the capability it will have to store and manage digital images, such as photographs and scanned documents. For example:

- Supervisors will have better information from which to make case assignments, including real-time access to the current workload distribution
- Record management will improve. By reducing the need to track down files and providing immediate access to previously closed cases, workers, supervisors, and administrators will have accurate information regarding placements, providers, trends, impact assessment, and caseloads. This in turn will enable better planning at the local, district, and State levels.
- Electronic access to essential case information, including images of case documentation, will allow workers to cover other workers' case assignments and securely access the information from virtually anywhere.
- The central database will allow simultaneous access to consistent information for all levels of staff. While only one person can have access to the paper file, the multiple people involved in the case can have access to online information. Thus, the same information is available to the social worker, supervisor, and court worker who are all working with the same case.

Significantly, the clients will have access to more information from which to make informed choices. Service options will be presented to the client, when appropriate, allowing the worker to assist the client in selecting the options that are best for the particular situation.

The New System will continue to produce program improvements for county child welfare Program Managers and State administrators through:

- **Better Program Planning** – More complete and timely data will improve program planning.
- **Compliance with State/Federal Mandates** – Counties and the State will be better able to identify and address compliance issues and/or trends.
- **Enhanced Program Oversight** – Online program reviews will reduce the need for site visits and increase the number of reviews and amount of technical assistance that can be completed each year.
- **Issue Resolution** – An improved statewide system will increase common understanding of case-related issues, as all parties are able to view the exact same information.

2.8.6. Improved Credibility

Integration of information will allow social workers to respond promptly and accurately to external inquiries, thereby improving the credibility of the administering agencies within the community. The overall ability for the New System to provide accurate and timely information to the legislature, county Board of Supervisors, other agencies, and to citizen interest groups will be enhanced.

2.8.7. Improved Usability

Efficient electronic access to essential case information, including images of case documentation, will reduce the time workers must spend navigating the system and maintaining paper files. In addition, because the planned architecture will support a new graphical user interface (GUI), the State anticipates that users will experience the following improvements:

- **Menu Navigation** – Simplified menu navigation will allow staff to spend less time on the system and more time serving families.
- **Electronic Documents** – The ability to store and retrieve a variety of document types (e.g., pictures, scanned images, signatures, etc.) will result in complete case files in one countywide accessible location.

2.8.8. Increased Productivity

Although the proposed solution does not recognize a complete Business Process Re-engineering (BPR) project, it does suggest improving the current GUI to provide workers with the ability to increase productivity. Productivity gains occur with the implementation of the following:

- **Improved Data Entry Methods** – Data entry improvements result in more complete and accurate data.
- **Improved Pre-Population of Data** – The ability to pre-populate forms and documents within a case increases staff efficiency and decreases repetitive data entry.
- **Improved Automated Workflow** – An automated data workflow provides the ability to perform numerous functions simultaneously rather than sequentially.
- **Improved Concurrency** – Multiple users concurrently work on portions of a case record simultaneously. This reduces optimistic concurrency issues and bandwidth peaks, and enhances the ability to provide integrated case management.

2.8.9. Open and Flexible Architecture and System Design

The New System will provide California's disparate counties with the flexibility they need to provide excellent child welfare services in very different geographic, economic, and political contexts. For example, flexibility can be maintained for specific business practices such as Placements and Adoptions while ensuring that common logic is built and maintained for all counties in a single system.

The New System model is based on open system architecture concepts that will provide the flexibility to build and integrate functional components into the system utilizing a variety of industry-standard, COTS products, while meeting business requirements and maintaining overall performance. This follows an industry trend away from custom developed systems, which greatly increases the number of vendors able to maintain and support these COTS systems.

In addition, the New System architecture has several unique features that will contribute significantly to its value and position CWS well for the future. The architecture of the New System is based on a web browser interface. The new architecture will make the New System largely platform independent, thus allowing counties greater flexibility in selecting hardware and software. The New System will also be available 24 hours a day, seven days a week, maximizing the flexibility counties will have to set office hours.

2.8.10. Improved Ongoing Maintenance

Current system users consistently expressed concerns with the amount of time it takes to make an application change within the existing architecture. By developing the New System in a technical architecture that supports overall modularity (i.e., object oriented technology), the following improvements in ongoing system maintenance will be recognized:

- **Decrease in Timeline for Enhancements** – A new technical architecture decreases the time to implement changes to the application. This allows the application to reflect program changes more quickly, creating efficiencies for the program operations (i.e., business progress, forms, data reporting, etc.).
- **Decrease in Maintenance Time** – A reduction in maintenance time occurs by:
 - Replacing the hard coded business rules with object-oriented techniques.
 - Establishing common functional components that have established interface rules.
 - Decoupling the tightly integrated code into modular functions.
 - Isolating the technical architecture from the functional components.
- **Decrease in Manual Processes** – Shortened system change timeframes will reduce the time currently committed to manual system “workarounds” needed to implement policy and practice changes in advance of automation updates.

2.8.11. Improved Security/Confidentiality

Ensuring overall information security and confidentiality is extremely important in a child welfare system. It is important to note that a new technical architecture will enhance the ability to provide the following improvements security and confidentiality.

- **Interfaces** – Provides easier addition of new user groups to the system by external organizations and systems, while maintaining the proper access control mechanisms.

- **Tighter Control** – Provides the ability to apply more granular security control levels to limit access to appropriate staff for better-integrated case management.
- **Inclusion of Critical Business Partners** – Provides the ability to allow service delivery partners to enter data and retrieve information without compromising security or confidentiality.

2.9. QUANTITATIVE BENEFITS

Quantifying some of the benefits expected from the New System presents a basic problem not encountered in quantifying the benefits expected from implementing an automated solution for the first time. While a majority of the CWS program areas are currently supported by full automation, the new technical architecture, addition of missing SACWIS functionality, and availability of tools to enable caseworkers to be even more productive remotely will result in an even greater level of benefits. One key benefit of improved automated support is the decrease in the time currently devoted to performing computer tasks and a notable increase in the time case workers can devote to providing services to children and families.

Quantitative savings and benefits will result from improved program administration, staff productivity, and error reduction associated with implementation of the New System. All program-related savings will be redirected annually in the following areas:

- Elimination of current system operational charges.
- Error reduction in the foster care program administration.
- Increased productivity.
- Program savings in Adoptions and automated interfaces.

With the exception of system savings, the State assumes that benefits for each release will not be fully realized until one year after full implementation of each release because of the learning curve associated with the use of new functionality. It is the intention of the State to reinvest all realized savings and benefits back into the program to:

- Alleviate the unfunded workload (as documented in SB 2030).
- Facilitate the achievement of new program requirements (as documented in and subsequent to SB 2030).
- Improve the tracking and analysis of outcome measures.
- Decrease busy work and administrative tasks, thereby increasing quality time for case workers to ensure children and families are receiving the services required to move them to a state of permanency and stability.

The following estimated savings and benefits will be realized through the implementation of the New System.

2.9.1. System Savings

The efficiencies gained through the new architecture and reduced need for the number of staff to maintain the New System results in significant savings. The average annual cost to maintain the current CWS/CMS is \$122 million. The projected average annual cost to maintain the New System is \$89 million. The New System maintenance and operations will be less than the current system as the implementation and maintenance of industry standard and modern infrastructure is cheaper and more efficient than the current, outdated environment of the current CWS/CMS.

The proposed solution for the New System is built on SOA technology that establishes an overall approach to flexibility while utilizing advanced, but proven technologies. Hardware used in support of the proposed alternative is required to be technologically advanced at the point of installation. In addition, overall technology standards will be enforced to require that hardware and software remain within industry standard levels. The proposed solution's modular architecture provides a system that can evolve over time, thereby extending its system life expectancy. Specifically, the solution provides the ability to upgrade/replace portions of the system without having to replace the entire system. In addition, savings will be achieved through the centralization of the application and the elimination of maintaining software on fourteen thousand desktops and local county servers. Costs for maintenance and operations are based on current costs for hardware and software maintenance and industry standards for application maintenance of systems of similar size and complexity that use Service-Oriented Architecture.

At the time the current CWS/CMS is decommissioned (end of year three), the State will be able to realize an average annual savings of approximately \$33 million in maintenance costs. As outlined in Section 2.6 and in Appendix A, the TAAA Report, the proposed alternative is clearly the most cost-effective solution for the state.

2.9.2. Error Reductions in the Foster Care Program Administration

Currently the counties are experiencing inefficiency with Foster Care Program Administration. This benefit consists of two issues that are currently lacking workflow support.

- **Foster Care Overpayments** – Several counties have indicated that overpayments are regularly being made to Foster Care facilities. When a child is moved between Foster Care facilities (e.g., from Home A to Home B), the eligibility payment continues to be made to Home A until the move is reported. If the move is not reported in a timely fashion (or at all) Home B will apply for and receive the eligibility payment. Pursuant to state law, duplicate payments will be paid for the same child and cannot be recouped unless fraud on the part of the family can be proved. There is currently no automated process to eliminate this type of overpayment. This results in Foster Care overpayments that are not being recouped.

If the New System and the financial management system were fully linked, payment could be automatically stopped when a child was removed from the home. This would result in reducing the number of overpayments being made to Foster Care facilities.

The overall expenditures for Foster Care payments in California were \$1.457 billion for SFY 03/04³. Statewide, only two counties have implemented automated systems to address Foster Care overpayments (i.e., Los Angeles and Alameda.) Because those counties have

³ *Foster Care Expenditures for FY '03-'04 received from CDSS.*

implemented a solution, expenditures for those counties were removed from the statewide total. The total expenditures for the remaining counties are \$896.1 million.

One county has experienced an overall error rate of 4% of their entire Foster Care expenditures. Another county has experienced 1.7%. To establish an average overpayment amount for the State, a conservative assumption was made to anticipate that less than 1% of foster care payments (\$896.1 million for the remaining counties) will not be recovered and total \$467,417 monthly or \$5,609,000 annually. With the automation of eligibility determination, the State can expect a 10% reduction in unrecoverable overpayments, resulting in a savings (cost avoidance) of \$560,904 annually.

- **Financial Management Recovery** – Currently (SFY 03/04⁴) the State is reporting an annual recovery of Foster Care overpayments at \$2,407,458. With an automated financial management system in place, the State estimates that an increase can be obtained in recovery of overpayments by 5%. This would result in an annual savings of \$120,372.

The total annual redirection for error reductions in the foster care program administration through reduction of overpayments and increase in fund recovery is \$681,276.

Table 6 – Total Annual Savings for Error Reductions in the Foster Care Program Administration

DESCRIPTION	AVERAGE OVERPAYMENT PER MONTH	% REDUCED	TOTAL SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
Foster Care Overpayments	\$467,417	10	\$46,742	\$560,904
Financial Management Recovery	\$200,622	5	\$10,031	\$120,372
Total Annual Savings for Error Reductions in the Foster Care Program Administration				\$681,276

2.9.3. Increased Productivity

2.9.3.1. Reduced Wait Time

With the implementation of a new technical architecture, there will be an overall reduction in the amount of time the social worker must wait for the current CWS/CMS to display or process information. Based on interviews with counties, it is anticipated that social workers currently wait an average of 1.75 hours per month for the system to process and/or provide information.

The performance improvements recognized with the New System will increase overall productivity and allow the social worker more time to work with children instead of working with the current CWS/CMS. The new technical architecture and web services should decrease the average time a social worker must wait for the system by 75%. If 8,463⁵ caseworkers spend

⁴ Foster Care Recovery of Expenditures for FY '03-04 received from CDSS.

⁵ FTE's for FY '03-'04 received from CDSS.

1.31 hours less of their time a month waiting for the system, the result is an overall redirection of \$5,853,684 annually.

Table 7 – Total Annual Savings for Reduced Wait Time

AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER MONTH	NUMBER OF WORKERS	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
\$44	1.31	8,463	\$487,807	\$5,853,684
Total Annual Savings for Reduced Wait Time				\$5,853,684

2.9.3.2. Remote Access

Technology to support PDAs or other remote access technology for social workers in the field will increase productivity. They will no longer be required to commute back to the office to enter and retrieve information. They will be able to enter information while waiting for appointments (i.e., medical, court, etc.) and at other down times while performing work in the field.

Interviews have been conducted with social workers in three counties, Placer, San Diego, and Los Angeles, to determine the extent to which their social workers would utilize mobile technology. Los Angeles has stated that mobile technology will save the social worker considerable amounts of time (i.e., 4 to 6 hours a week) since the case worker will no longer be required to travel back to the office in heavy traffic. The social worker will have the ability to enter information via the Internet or other mobile technology devices and then travel to the next appointment. Placer County has, at times, waited in court for three hours until the court case is called. Placer County also estimates this will be a considerable weekly savings if they can complete work while waiting for their cases to be called. San Diego County stated that the ability to allow the social worker to work off-site and record information immediately for a home assessment before traveling to the next appointment will increase efficiency, increase quality of information, and make the information more readily available. Remote access will enable social workers to quickly identify Foster Care placements, thus reducing a child's potential trauma through immediate placement.

If the social worker performs an additional one hour of work a week as a result of having mobile technology and 50% of the work force of 8,464 social workers utilizes this technology, \$8,937,984 will be recognized in redirection annually.

Table 8 – Total Annual Savings for Remote Access

AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER MONTH	NUMBER OF WORKERS	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
\$44	4	4,232	\$744,832	\$8,937,984
Total Annual Savings for Remote Access				\$8,937,984

2.9.3.3. *New GUI Design*

Upon analysis of the TAAA report⁶ and because of several interviews with current CWS/CMS county liaisons, county representatives, and county social workers, several GUI-related pain points were noted. Resolving these pain points would both solve problems and increase social worker productivity.

- **Eliminate redundant data entry** – With the complexity of the current CWS/CMS and the fact that the system has been upgraded over a ten-year timeframe, the current CWS/CMS does not populate data items entered to other screens that contain the same data items in as many areas as it could. The caseworkers find that they are repeatedly performing data entry of the same information. For example, parent and child information must be entered into many forms and reports. Pre-populating fields will reduce the amount of time to perform data entry.
- **Eliminate the hierarchy of screens** – When the system was originally developed, the IEEE standards were to develop screens that contain all the fields on one screen without the ability to scroll horizontally and vertically. If all the fields for one topic did not fit on one screen, the screen would be divided between several screens and the user would be required to click a tab to access the additional information. This created a hierarchy (i.e., drill down) of screens to access information.

Technology has changed and IEEE standards have changed on how information is displayed and accessed on a screen. The standard is now the utilization of scroll bars for better usage of screen real estate and to allow the screens to more closely mirror the manual forms and workflow they support. In addition, information is more readily and easily available to the user.

By allowing the social worker to access more information at one glance as opposed to clicking several tabs to find the information, the information can be viewed and accessed faster and will result in time savings when navigating through the system. A Placer county social worker documented:

- 25 steps (i.e., mouse clicks) to navigate to the appropriate location to enter a contact. It currently takes a minimum of four minutes to complete these 25 steps. This estimate does not include the time to enter the contact narrative.
- 18 steps (i.e., mouse clicks) to view and print contact information. It currently takes a minimum of two minutes to navigate to the point to view and print a contact for one case with one child.

These efforts should be greatly reduced with the new GUI layout of information.

The timesaving calculation for a new interface design does not include the amount of time saved if currently unsupported workflow is added to the system. It also does not include the amount of time saved or the efficiency aspect when notifications are automatically generated to inform appropriate parties of current actions. The timesaving of a new interface design, which eliminates redundant data entry and reduces the number of screens a social worker must access, is estimated at a 2% reduction for the entire caseload. Caseload information was

⁶ *Technical Architecture Alternatives Analysis Report, March 23, 2005.*

obtained from current activity reports⁷ for this calculation and time to perform specific process information was obtained from the SB 2030 report. The resources to be redirected calculate to \$582,384 annually.

Table 9 – Total Annual Savings for New User Interface

AVERAGE HOURLY RATE	CASE TYPE⁸	TIME SAVED IN HOURS PER MONTH	NUMBER OF CASES	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
\$44.00	ER	.02	28,260	\$24,869	\$298,428
\$44.00	FM	.08	3,486	\$12,270	\$147,240
\$44.00	FR	.07	2,227	\$6,859	\$82,308
\$44.00	PP	.09	1,145	\$4,534	\$54,408
Total Annual Savings for New User Interface					\$582,384

2.9.3.4. Improved Optimistic Concurrency

The optimistic concurrency settings in the current CWS/CMS do not allow more than one worker to update the same record at the same time. If more than one user opens the same record for updates, the first person to close can save their update but (all of) the work of (all of) the others is lost. There is no notification to staff at the time they open the record that the record is currently in use by another worker. Notification only occurs after they complete their work and attempt to save it and the work is lost. Staff must then re-key the work.

Interviews with social worker staff revealed that workers lose anywhere from one to four hours of work per week due to optimistic concurrency conflicts. Implementation of improved strategies would eliminate lost work, time lost due to rework, and worker frustration. The calculation below only takes into account the Optimistic Concurrency issue. It does not address the social workers' concern of entering information into the system and then having it "disappear."

The Optimistic Concurrency report⁹ shows that optimistic concurrency occurs on average 919 times per week statewide. The average amount of time required for recreating the work is estimated at 30 minutes per incident¹⁰. If optimistic concurrency occurrences were reduced by 80%, the total number of occurrences would be reduced to 184 per week, a reduction of 735 occurrences per week. This redirection estimate comes to \$776,160 annually.

⁷ Caseload information was obtained from CDSS for activity occurring on cases monthly.

⁸ Case Types are ER – Emergency Response, FM – Family Maintenance, FR - Family Reunification, and PP – Permanent Placement.

⁹ Business Trends: Optimistic Concurrency Report, June 1, 2005.

¹⁰ Interviews conducted with Social Worker staff in Placer County, San Diego, and LA to confirm an average of 1 hour. Time to recover data through data entry ranges from 1 hour to 8 hours.

Table 10 – Total Annual Savings for Improved Optimistic Concurrency

AVERAGE HOURLY RATE	TIME SAVED IN HOURS	TOTAL OCCURRENCES AVOIDED PER MONTH	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
\$44	.50	2,940	\$64,680	\$776,160
Total Annual Savings for Improved Optimistic Concurrency				\$776,160

2.9.4. Program Savings

2.9.4.1. Automate Adoptions Case Management

Although a few features have been added as a sub-system, full Adoptions case management functionality is not part of the current CWS/CMS. Each day Adoption social workers perform a variety of manual tasks that can be eliminated or improved through automation. Through interviews with the Sacramento District Office staff regarding 1) the entire adoption process and 2) successes with other adoption automation projects, it was determined that a fully automated Adoption case management system will save staff time spent processing adoption cases. The time saved will allow Adoption workers to reinvest their time into working more with children and families, identifying potential foster and adoptive families, conducting assessments, establishing service plans, delivering services, and working toward expeditious achievement of the child's Permanency Planning Goal (PPG).

The following items were identified as major components of the overall benefit in Automation of Adoptions case management:

- Automation and routing of forms
- Facilitation of reporting
- Reducing time between setting an adoption goal and adoption finalization

Each of these benefits are summarized in the following table and detailed in the subsequent paragraphs. It is estimated that an automated case management system would result in an overall annual redirection of \$5,585,376.

Table 5 – Total Annual Savings for Automate Adoptions Case Management

DESCRIPTION	TOTAL REDIRECTION PER YEAR
Automation and Routing of Forms	\$2,004,288
Facilitation of Reporting	\$2,004,288
Reducing Time between Adoption Goal and Finalization	\$1,576,800
Total Annual Savings for Automate Adoptions Case Mgmt	\$5,585,376

2.9.4.1.1. Automation and Routing of Forms

There are approximately 24 forms related to the Adoption process from the initial assessment of a child's suitability for adoption to documenting post-adoption Adoption Assistance Program (AAP) services.

Automated forms will allow staff to enter data once into the New System, populate the information onto each form, and eliminate the need to re-key the same data elements onto each form. This will improve the accuracy of information contained on the forms as well as the productivity of administrative staff and social workers. Social workers were interviewed and each of the adoption forms analyzed for timesaving.

All forms are required for each Adoption case except for forms related to the Indian Child Welfare Act (ICWA). ICWA forms are only for cases involving children of Native American Indian descent. The form breakdown is as follows:

- Indian Child Welfare Act (one ICWA form).
- Review and Read Case (one form).
- Confirmation Forms (two forms).
- Adoptive Placement Documents (12 forms).
- Judicial Finalization (Five forms plus one ICWA form).
- Finalization Documents (one form).
- Post Adoption AAP Forms (two forms).

Estimates for time saved on forms are outlined in the following table¹¹. Timesaving are based upon the forms to be included in an automated case management system for adoptions and an assumption is being made that each form group in the table below is required for each adoption case. If 24 standard forms were automated, an estimated six hours of work would be saved per case. With 7,004 adoption cases finalized in SFY 03/04, 584 per month statewide, this will result in a projected redirection of \$1,850,112.

Table 6 – Total Annual Savings from Automation of Forms

DESCRIPTION	AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER CASE	NUMBER OF CASES	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
Review and Read Case	\$44	1	584	\$25,696	\$308,352
Confirmation Forms	\$44	.5	584	\$12,848	\$154,176
Adoptive Placement Docs	\$44	2.5	584	\$64,240	\$770,880
Judicial Finalization Forms	\$44	.5	584	\$12,848	\$154,176
Finalization	\$44	1	584	\$25,696	\$308,352
Post Adoption (recertification / amend)	\$44	.5	584	\$12,848	\$154,176
Total Annual Savings from Automation of Forms					\$1,850,112

Automated forms will also eliminate the need to route forms via interoffice mail, US mail, intra-office in/out boxes, etc. Forms could be completed, reviewed, updated, and approved online. This will result in time (duration and work) savings. Automating the routing of forms can save an estimated .50 hours of work per case. This calculation only accounts for timesaving. Automation of routing these forms will also result in additional savings such as costs for preparing mailings, envelopes, interoffice delivery services, postage charges, etc. that will no longer be incurred. This amounts to \$154,176.

¹¹ Averages were provided through interviews with the Sacramento District Office Staff.

Table 7 – Total Annual Savings for Automation and Routing of Forms

DESCRIPTION	AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER CASE	NUMBER OF CASES PER MONTH	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
Automation of Forms	\$44	6	584	\$154,176	\$1,850,112
Routing of Forms	\$44	.5	584	\$12,848	\$154,176
Total Annual Savings for Automation and Routing of Forms					\$2,004,288

2.9.4.1.2. Facilitation of Reporting

A series of assessments, reports, and documents are completed for each adoption case. These reports are substantial, time consuming, largely unsupported by the current CWS/CMS, and require manually intensive processes. Creation of these reports involves retyping much of the information already contained in previous reports and previously created forms (duplication of data entry).

It is also assumed that the accuracy and quality of the data contained in the reports will be improved and that time required to complete the reports will be reduced. In addition, the increased accuracy and on-line availability of the reports will improve the ability of the worker to access data and all related child welfare activities.

Times saving estimates for some of the larger reports are outlined in the following table¹². Timesaving are based upon the reports being included in an Automated Case Management system for adoptions and an assumption is being made that each report listed in the table below is required for each adoption case. With an average caseload of 7,004 annually, 584 per month statewide, this will result in a projected redirection of \$2,004,288.

¹² Averages were provided through interviews with the Sacramento District Office Staff.

Table 8 – Total Annual Savings for Facilitation of Reporting

DESCRIPTION	AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER CASE	NUMBER OF CASES	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
WIC 366.26 Assessment	\$44	1	584	\$25,696	\$308,352
FAF Assessment	\$44	.5	584	\$12,848	\$154,176
Home Study Report	\$44	2.5	584	\$64,240	\$770,880
Child Narrative	\$44	1	584	\$25,696	\$308,352
Final Court Report	\$44	1.5	584	\$38,544	\$462,528
Total Annual Savings for Facilitation of Reporting					\$2,004,288

2.9.4.1.3. Reducing Time between Setting an Adoption Goal and Adoption Finalization

The underlying benefits in automating the many complex administrative tasks and necessary paperwork associated with Adoption are that it allows the social worker to spend more time identifying adoption homes for children, providing case management services, and working with the courts to finalize the adoption. This results in a decrease between the time in setting of adoption as a goal and the finalization of the adoption. Decreasing the waiting period will reduce the number of days a child will spend in foster care, which will result in an increase in foster care payment savings.

Finally, the overall probability of a successful placement outcome will increase.

Currently the daily cost of housing a child in Foster Care is \$59.50 a day, and the daily cost of a child in an adoptive home (AAP) is only \$29.92 a day. The following benefits of automation may contribute to reducing the amount of time a child spends in Foster Care:

- Immediate notifications regarding cases ready for review.
- Facilitation of the review process through automation eliminating stacks of case files on a desk or in/out box and instances where documents must be mailed to (and from) other offices or departments for review.
- Interface with courts for direct access to send and receive information electronically instead of through the mail or courier system.
- Ability for faster decisions due to more readily available information.
 - Facilitated placement matching – provides a starting point for researching and accessing information regarding families and children.

- Questions regarding the review of a case or other information can be directly sent to the social worker in the field through remote access.

With automation, the State estimates that an overall reduction of 15 days in the length of stay in Foster Care prior to adoption can be recognized. The expectation is that only 50% of the caseload will recognize this savings, as there are many related factors in the adoption process that are not possible to control. If a child is placed into AAP (e.g., at \$29.92) faster, the charge will be approximately \$30 less a day less than housing a child in Foster Care (e.g., at \$59.50). This will result in a savings of \$30 a day for the 15 days. Assuming that half the average caseload of 7,004 adoptions per year statewide will see a reduction of 15 days in the length of stay in Foster Care, at a savings of \$30 a day, the State can recognize \$1,576,800 in redirection of these funds annually.

Table 95 – Total Annual Savings for Adoption Placement

AVERAGE DAILY RATE	TIME SAVED IN DAYS PER MONTH	NUMBER OF ADOPTIONS PER MONTH	TOTAL SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
\$30	15	292	\$131,400	\$1,576,800
Total Annual Savings for Adoption Placement				\$1,576,800

2.9.4.2. Automated Interfaces

The process of acquiring, compiling, and delivering (e.g., faxing, hand carrying, telephoning) information can be a time consuming process for the social worker especially where there are multiple organizations requiring similar information. The social worker spends time each day performing tasks that can be eliminated through a two-way interface to existing systems.

It is estimated that building automated interfaces from the New System to the following legacy systems would result in an overall annual redirection of \$6,539,880.

Table 10 – Total Annual Savings for Automated Interfaces

	AVERAGE HOURLY RATE	TIME SAVED IN HOURS PER CASE	NUMBER OF CASES PER MONTH	TOTAL LABOR SAVINGS PER MONTH	TOTAL REDIRECTION PER YEAR
Title IV-A: CalWORKs Program	\$44	.08	60,833	\$214,132	\$2,569,584
Title IV-D: Child Support	\$44	.08	6,328	\$22,275	\$267,300
Title XIX: Medi-Cal Program	\$44	.08	6,328	\$22,275	\$267,300
Title IV-E: Eligibility Determination (1)	\$44	1.00*	5,853**	\$257,532	\$3,090,384
Title IV-E: Eligibility Determination (2)	\$44	.04	7,827	\$13,766	\$165,312
Total Annual Savings for Automated Interfaces					\$6,359,880

* Average number of time saved per month, not per case.

** Calculation per social worker, not per case.

2.9.4.2.1. Title IV-A: CalWORKs Program

The CalWORKs program is California's largest cash assistance program for children and families. Social workers access the SAWS systems to obtain information that helps make better assessments and coordinate services. Approximately 730,000 abuse and neglect clients come in each year and need to be checked against the SAWS. SAWS provides the single standard two-way interface into CalWIN, LEADER, ISAWS, and C-IV. The social worker searches SAWS when initial abuse allegations are received, and through the life of a case for integrated case management. This task is estimated at five minutes per case. Elimination of this task through automation will result in a total redirection of \$2,569,584 annually.

2.9.4.2.2. Title IV-D: Child Support

The child support program establishes and enforces court orders for child, spousal, and medical support from absent parents. The social worker searches for parental information to help make placement decisions. This task is estimated at five minutes per case with an annual monthly caseload of 75,934¹³. If this information is automatically searched and provided to the social worker, a total annual redirection of \$267,300 will result.

¹³ SFY 2005/06 Governor's Budget cited the average monthly number of children aided by Foster Care as 75,934.

2.9.4.2.3. Title XIX: Medi-Cal Program

Medi-Cal, California's Medicaid program is a key component of California's health care delivery system. The social worker searches for information on each child to determine whether the child is already receiving Medi-Cal. This task is estimated at five minutes per case with an annual caseload of 75,934. Elimination of this task through automation will result in a total annual redirection of \$267,300.

2.9.4.2.4. Title IV-E: Eligibility Determination

The automation of the eligibility information-sharing process will eliminate or improve several tasks, which will result in a total annual redirection of \$3,255,696.

- **Eliminate the Manual Process of Delivering Information to Eligibility** – The manual process of delivering (e.g., faxing, hand carrying, telephoning) information to the eligibility department can be eliminated through automation. The average social worker spends 15 minutes delivering eligibility information per week, calling for clarification of information, and discussing cases. The number of FTEs minus Los Angeles (Los Angeles has been removed from the equation because it already has a one-way interface for eligibility) is 5,853¹⁴. The elimination of the manual data-sharing task through automation will result in a total redirection of \$3,090,384 annually.
- **Automate the Data Entry Process of Eligibility Data** – Once the eligibility division performs the calculations, the information is returned to the social worker who then has to manually enter the results. Through a two-way interface with the eligibility department, this task can be eliminated. The average worker spends five minutes per case performing data entry and the annual caseload of foster care children minus Los Angeles (Los Angeles has been removed from the equation because it already has a one-way interface for eligibility) is 46,964. Automatically importing the eligibility results will realize a reduction of 50% in the time the social worker must work with the case. The timesaving recognized through the automation of this task will result in a total redirection of \$165,312 annually.

¹⁴ FTE's for FY '03-'04 received from CDSS.

2.10. BENEFIT PROFILE

The annual projected benefits/savings, as discussed in the previous sections, are summarized below. The annual benefits/savings can be found in Appendix C. The table below summarizes all the categories and benefit/savings that can be reinvested back into the program on an annual basis.

Table 11 – Total Quantitative Benefit Savings

SYSTEM SAVINGS DESCRIPTION		AVERAGE SAVINGS OR REDIRECTION PER YEAR
System Savings		\$33,000,000
Error Reductions in the Foster Care Program Administration		\$681,276
Increased Productivity		\$16,150,212
Reduced Wait Time	\$5,853,684	
Remote Access	\$8,937,984	
New Interface Design	\$582,384	
Improved Optimistic Concurrency	\$776,160	
Program Savings		\$11,945,256
Automate Adoptions Case Management	\$5,585,376	
Automate Interfaces	\$6,359,880	
Total Quantitative Benefit Savings		\$61,776,744

2.11. ONGOING BENEFIT MEASUREMENT

At the end of the planning phase and in preparation for the Implementation phase, the state will revalidate and revise the anticipated benefit measurements if necessary. Any changes in projected benefits will be reflected in the Implementation Advance Planning Document (IAPD) and future IAPD updates. The format of the IAPD will continue to comply with the requirements set forth by the Department of Health and Human Services - ACF. This will include the assessment of both qualitative and quantitative benefits on an annual and systems life basis. The annual and systems life costs and benefits will be, as much as possible, tracked by month as delineated in the guidelines.

In addition to the regular submission of the IAPD, an update will be made to the costs and benefits approximately one year prior to implementation of the New System. The timing of this update is specifically designed to replace projected costs with actual costs and to establish the baseline against which benefits will be measured. Subsequent updates will occur with the annual IAPDU.

2.12. STATEMENT OF VISION

The New System vision is to improve the safety, well-being, and permanence of children by enhancing the ability of social workers to do their job in an effective and efficient manner, providing access when and where it is needed. As recommended in the TAAA report and supported by the May 16, 2005 ACF letter, the New System will take full advantage of the business-driven capabilities of contemporary web services-based solutions via a single statewide system. Its Service Oriented Architecture (SOA) will provide the enabling technical platform. It will allow the child welfare community to define the essential services necessary for its core business needs, and to adapt rapidly to changing business conditions. The New System vision provides for a solution that more effectively, efficiently, and economically automates routine activities, supports complex child welfare tasks, focuses on child services transactions, and reflects an intuitive approach to supporting child welfare work. Implementation of the State's vision ultimately contributes to the successful achievement of outcomes through increased quality interactions and services between social workers and children and families.

3. PROJECT MANAGEMENT PLAN FOR PLANNING

“The Project Management Plan summarizes how the State will plan.

The State’s planning project organization is briefly described. At this point in the project, all that is required is that the State identify key players in the planning phase, such as the project manager and other key planning staff by name and title. This information can be depicted in an organization chart.

The Project Management Plan for planning describes how and when the activities for the Planning Phase will be conducted and schedules milestones for completion of key events.”

- State Systems APD Guide (September 1996)

The purpose of the New System planning phase is to develop project plans, create a project team, and develop/execute contracts for services required to develop a request for proposal (RFP), and plan the implementation phase. The State expects to award a contract, by competitive bid, to procure the services and goods necessary to develop, implement, and maintain a new SACWIS for the State of California. The New System RFP will not be a simple continuation of the current CWS/CMS processes and requirements. Project management reporting and measurement needs have also changed since the initial implementation of CWS/CMS. New System planning includes tasks to ensure that the future M&O organization will fully support and be responsive to the changing needs of the CWS program.

The Project Management Plan provides the State with the capability to oversee the successful completion of the procurement activities and initial project management planning activities required to position for successful execution of the Implementation Phase. The State’s project management approach includes the planning, reporting, and controlling of work; the identification, tracking, and resolution of problems and issues; proactive risk mitigation; and the communication and leadership necessary to ensure project success. The State will procure contractors that will work cooperatively with the State’s Project Manager, Program staff, project staff, and contracted services staff to keep the project team on schedule, keep stakeholders informed, and successfully deliver the New System to the counties.

3.1. PROJECT SCOPE

The overall project scope includes efforts to effectively bridge the use of the current CWS/CMS to the New System, building and maintaining the system on a web services-based platform, and continuing application changes (e.g., regulatory changes) after statewide implementation. This includes the New System Project Team’s oversight of the planning, development, and implementation of the Remote Access initiative to ensure continuity of approach and design for seamless integration. For purposes of defining project scope, the project is divided into four components:

- Procurement of System Integrator - competitively procure a contract to develop, implement, maintain, and operate the New System.
- Development of the New System – the New System contractor will develop a replacement system for the existing CWS/CMS to support CWS business functions.
- Implementation of the New System – the New System contractor’s bid will include transition from CWS/CMS to the New System.

- Maintenance and Operation (M&O) of the New System – the New System contractor will begin operating and maintaining the New System upon implementation.

The actual development, implementation, and continuing M&O are not part of the New System planning phase.

3.2. PROJECT MANAGEMENT

The New System planning phase will be managed in accordance with structured project management methodology (i.e., Institute of Electrical and Electronics Engineers (IEEE), Project management Body of Knowledge (PMBOK), Information Technology Infrastructure Library (ITIL)) using practices and conventions established by the OSI Best Practices Workgroup (<http://www.bestpractices.cahwnet.gov>) and tracking task progress against the detailed project plan. The New System Integration unit within the CWS/CMS Project Management Office (PMO) will support the project management. Progress will be measured in terms of scope, schedule, and resources (costs).

OSI in-house project management methodologies are consistent with those of the Department of Finance and those practiced throughout the industry. OSI will also expect vendors providing products or services to implement the New System to conform to the project's methodologies and management product standards, as well as to produce specific project management-related products.

3.2.1. Project Planning and Tracking

A formal Project Management Plan (PMP) will be developed and all management, technical and business staff, and vendors involved in this effort will be trained in its contents and use. Key components of the PMP will include description of practices related to:

- ❑ Project initiation activities.
- ❑ Detailed role and responsibility definition.
- ❑ Issue tracking, escalation, and resolution.
- ❑ Change request approval and tracking.
- ❑ Schedule/milestone tracking and resource allocation.
- ❑ Budget management and expenditure control.
- ❑ Deliverable/product review, approval, and other acceptance criteria.
- ❑ Vendor management.
- ❑ Project success evaluation criteria and project close-out activities.
- ❑ Status and other reporting expectations.
- ❑ Relationships to other IT or business efforts.

PMP components may be delivered as separate products at the discretion of the New System Project Manager. Relationships to Requirements Management, Configuration Management, Risk Management, Contracts/Procurement Management, Oversight, Training, Testing, Change Leadership, and Communication, and Marketing will be described in the PMP.

Project oversight and governance parties will play an essential role in ensuring the Project Manager gathers, assesses, and acts on the most relevant information related to progress against the project plan.

3.2.2. Requirements Management

OSI recognizes that changes to business and technical requirements may occur anytime in the project, especially because of technology testing or implementation, revisions in project budget, and emerging needs. In order to be responsive to needed changes and conscientious about managing the impact of change, project management will be responsible for formal and intentional management of requirements. Key elements of Requirements Management will include:

- ❑ Assumption Definition, Tracking, and Traceability.
- ❑ Business Requirement Definition, Tracking, Traceability, and Test Verification.
- ❑ Technical Requirement Definition, Tracking, Traceability, and Test Verification.
- ❑ Phase and Product Entry and Exit (Acceptance) Criteria Definition, Tracking and Signoff.

To accomplish this, New System assumptions and requirements will be confirmed and documented early in the project lifecycle by the project manager with assistance from the PM support contracted vendor. The resulting baseline requirements-based products will be used to create contractual agreements, test plans, and project closeout plans. As changes are requested or needed, an Issue Tracking and Resolution Process will ensure such requests are analyzed, approved, documented, and notification of change will be distributed among project participants and interested parties.

The project's Technical IV&V vendor will independently validate that requirements are appropriately defined and traceable. As issues are raised and change requests considered by the project management team, the IPOC vendor will provide independent insight into the impact of changes on requirements scope, test scenarios, and project deliverables.

General criteria for accepting changes to baseline requirements will be developed if initial experiences addressing change requests demonstrate that changes fall into generalized categories and will not, therefore, be accepted on a case-by-case basis. All changes to requirements will be documented in the project's requirements' traceability / tracking records.

The New System Project Manager will perform this work with assistance from the Project Management Support Services vendor.

3.2.3. Configuration Management (CM)

Configuration management policies and practices are key to managing technical change, anticipating and mitigating implementation and migration problems, and ensuring configuration documentation is consistent, coherent, and produced.

A formal Configuration Management Plan, using existing configuration management practices established by OSI will be developed to define roles, responsibilities, and procedures for management, technical staff and business staff, and vendor personnel involved in this effort to

guide the production of configuration documentation consistent with established practices. Relationships with Project Planning and Tracking, Requirements Management, Testing, and Training will also be defined.

The New System Project Manager will perform this work with assistance from the Project Management Support Services vendor.

3.2.4. Contracts/Procurement Management

OSI recognizes the important role quality contracts management plays in the success of any IT project that involves procurements of goods or services. To ensure that contract agreements are fulfilled, the contract implications of changes are considered, and to assist with resolution of problems associated with contractor deliverables, the New System project structure will include a dedicated contract manager.

A formal Contracts Management Plan will be developed to define the roles and responsibilities of all those involved in managing procurements and contracts fulfillment, and to define specific procedures managing invoices, monitoring contract implications of proposed changes, and describing how disagreements with vendors will be managed and escalated for resolution. Relationships with Project Planning and Tracking, Requirements Management, Risk Management, IT Procurement Planning, and Oversight will also be defined.

The New System Contract Manager and Procurement Manager will perform this work with assistance from the Project Management Support Services vendor.

3.2.5. Risk Management

A formal Risk Management Plan will be developed for the development and implementation of the New System. Initial risks have been identified and mitigating actions have been planned. The project intends to perform periodic, formal risk assessment, which will be scheduled as appropriate into the master project milestones.

The New System Project Manager will perform this work with assistance from the Project Management Support Services vendor.

3.3. PROJECT ORGANIZATION AND PERSONNEL RESOURCES

Effective project management is grounded in the establishment of a project team committed to the achievement of the goals and objectives of the project. While OSI has management responsibility for the planning and execution of this project, the oversight responsibility and its project management approach is based on the formation of an integrated project team consisting of staff from OSI, CDSS, the counties, Independent Project Oversight Consultant (IPOC), Technical Independent Verification and Validation vendor (Technical IV&V), and Project Management Support Services vendor. The projects' Governance Plan will govern the team's interaction. This will be a united organization committed to delivering a high-quality system to the 58 California counties that will be used to deliver child welfare services. The OSI will utilize qualified staff and vendors to perform selected activities of the project. The State will assume overall project management of the project and consulting services will be used to complete activities for which State personnel with requisite skills are not available. The State will also

procure contractor services (i.e., IPOC and Project Management Support) to ensure the overall planning effort is successful.

3.3.1. Project Organization

The New System planning phase is organized into functional areas (project management, administration, and procurement). The planning team is comprised of staff from OSI, CDSS, DGS, county, and vendor subject-matter experts. Project oversight is the responsibility of:

- ☐ Administration for Children and Families (ACF)
- ☐ California Department of Finance (DOF)
- ☐ California Department of General Services (DGS)
- ☐ California Health & Human Services Agency (CHHSA)
- ☐ Independent Project Oversight Consultant (IPOC)
- ☐ Technical IV&V Services Vendor

Project governance is the responsibility of:

- ☐ CDSS Executive Sponsor (CDSS Children's & Family Services Division)
- ☐ CDSS Executive Steering Committee
- ☐ CWS/CMS Project Director
- ☐ County Governance Committees (Oversight Steering Committee, and County Welfare Directors' Association County Liaison)

Project management and planning is the responsibility of:

- ☐ New System Project Manager
- ☐ System Engineer/Contract Manager
- ☐ Procurement Manager

Project Management and planning will be supported through the following contracts and state staff:

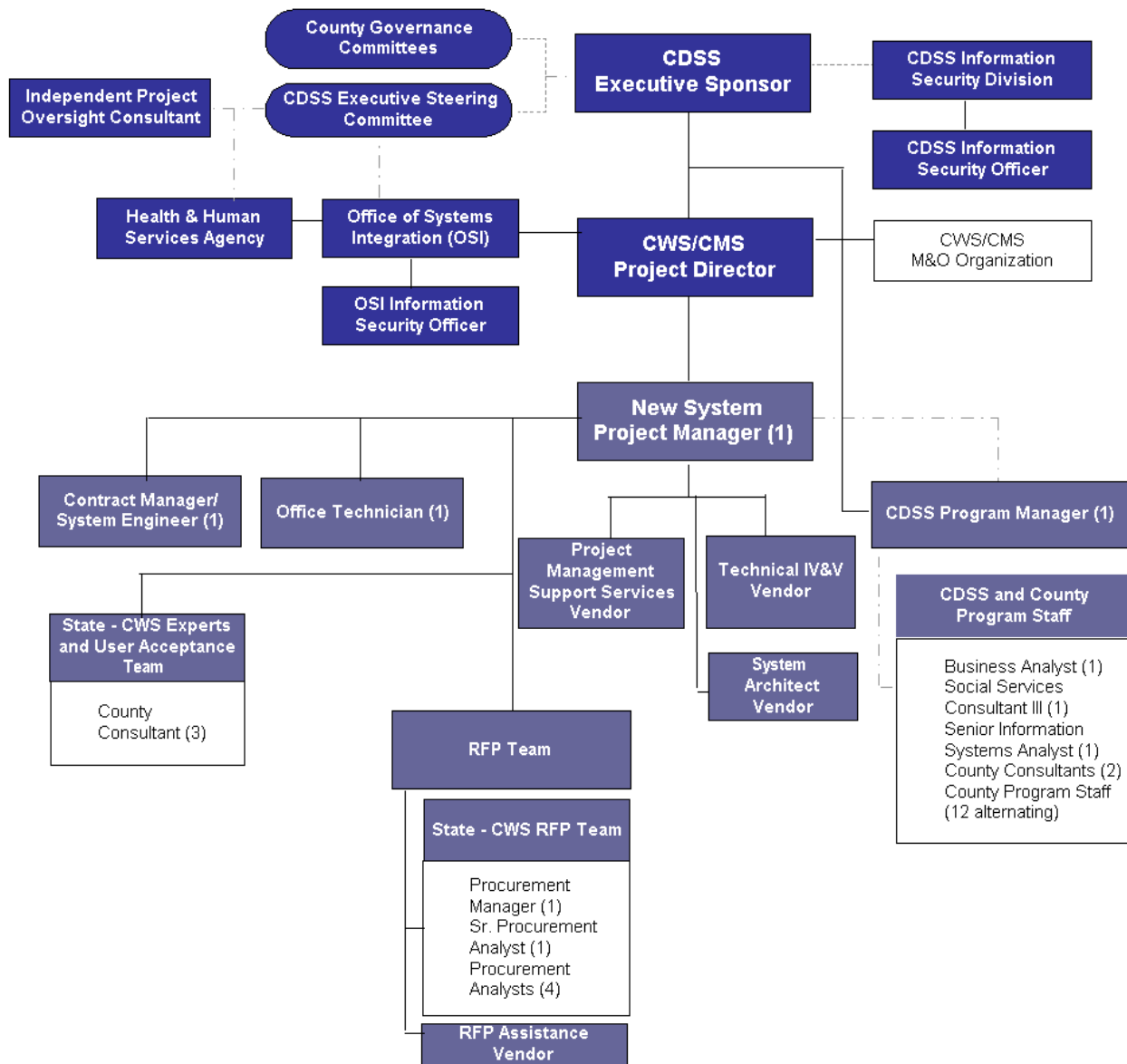
- ☐ Project Management Support Vendor
- ☐ RFP Assistance Contractor
- ☐ County Consultants
- ☐ System Architect Contract
- ☐ Procurement Analysts
- ☐ Office Technician

Program involvement for planning will be supported by:

- ❑ California Department of Social Services (CDSS New System Program Manager, Senior Information Systems Analyst, Social Services Consultant, Associate Government Program Analyst, County Consultants)
- ❑ County Program Staff

The following figure illustrates the project team planning organization and the interrelationships that will exist with the State, counties, other oversight and governance groups, and contractor teams.

Figure 4 – New System Project Planning Team



3.3.1.1. Project Oversight

- **ACF** – The Administration for Children and Families, within the Department of Health and Human Services (HHS), is responsible for federal programs that promote the economic and social well-being of families, children, individuals, and communities. ACF provides national leadership and direction to 1) plan, manage and coordinate the nationwide administration of comprehensive and supportive programs for vulnerable children and families and 2) oversee and finance a broad range of programs for children and families. The role of ACF in relation to this project is to review and approve funding requests for the New System and provide guidance to the State on its overall plan for meeting federal requirements.
- **DOF** – The Department of Finance manages the State of California budgetary investment in IT resources through the Office of Technology Review, Oversight, and Security (OTROS). For IT projects, the OTROS validates cost-benefit and economic analyses for IT investments, ensuring payback on investments. The OTROS, through its Statewide IT Project Oversight Framework, provides a system of graduated oversight for all reportable IT projects, establishes statewide standards for project management and project oversight activities, and describes how DOF will assess Department/Agency IT project management and oversight practices. The OTROS also establishes security, risk management, and operational recovery policy and then provides oversight for these areas.
- **DGS** – The Department of General Services provides the State of California's government entities with centralized procurement and acquisition services. The role of DGS related to the New System is to carry out the statutory responsibility for procurement of IT goods and services, including approval of the acquisition methods used and the establishment and interpretation of related policies, processes, and procedures. DGS reviews all proposed State IT projects; including the New System, to ensure the procurement represents a prudent investment of State resources while meeting the State's business needs. DGS directly administers every State IT procurement effort over \$500,000. DGS ensures fiscal and program integrity in the area of acquisitions through review and approval of CDSS, OSI, and all other State agency procurements to ensure compliance with State statutes and procurement regulations. The DGS carries out its authority through California's Public Contract Code, Government Code, State Contracting Manual, and the State Administrative Manual (SAM).
- **CHHSA** – The California Health and Human Services Agency administers State and Federal programs for health care, social services, public assistance, job training, and rehabilitation. The Secretary of the CHHSA is appointed by the Governor and serves as a member of the Governor's Cabinet. The Secretary and the CHHSA help the Administration carry out its objectives and policies regarding aforementioned State and federal programs. The CHHSA is the umbrella Agency that oversees the work of 14 Boards and Departments, which administer and/or direct services to the public. These Departments include the CDSS and OSI. The CHHSA performs program policy oversight while providing direction to the State agencies on various programmatic fiscal issues. The CHHSA provides guidance on CWS programs and on the New System. Specifically, the CHHSA Agency Information Officer (AIO) will serve as the Contract Manager for the New System Executive IV&V; approve all State-level IT project documents before forwarding them on to State control agencies; and meet monthly with CDSS and OSI to provide direction on critical project issues.
- **Independent Project Oversight Consultant Services** – The IPOC will identify and quantify any issues and risks affecting these project components and will focus on:

- Assessing the project management processes based on industry standards and best practices such as the Project Management Institute's PMBOK(R) Guide, IEEE standards, and ITIL.
 - Assessing the project work plan for feasibility (on-time, under-budget delivery of the intended product) and completeness.
 - Identifying, documenting, and tracking findings and risks for all deficiencies found during the IPO review via the regular status reports, the monthly Independent Project Oversight Report, and presentations (as required).
 - Reviewing of the tracking, monitoring, and performance metrics in use by the project management team.
 - Establishing independent earned value metrics to track and monitor the project's performance.
 - Interfacing with organizational and supporting processes.
 - Reporting status to DOF, the New System Project Manager, executive staff, and key stakeholders.
 - Determining if the appropriate procurement vehicle is being used and including the appropriate level of detailed scope and requirement specifications.
 - Determining if a formal software development lifecycle (SDLC) methodology is being adhered to and involves the appropriate staff throughout the process.
 - Determining how requirements are being tracked and managed from conception through testing of defects.
 - Determining if standards are being followed.
 - Determining if formal code reviews are being performed.
 - Determining if quality assurance procedures are being followed and if user sign-off is part of the process.
 - Determining if the enterprise architecture plan and standards are being adhered to.
 - Determining if formal deliverable inspections are being performed.
- **Technical IV&V Services** – The resources needed in this category include contracted staff to conduct IV&V for the new system procurement finalization and independent review of the evaluation and selection process. The IV&V Contractor will focus on:
- Conducting traceability analyses.
 - Conducting a hazard analysis.

- Conducting a risk analysis.
- Identifying and documenting issues and developing corresponding solutions.
- Conducting risk assessment and mitigation planning.
- Detecting and correcting errors as early as possible in the project life cycle.
- Assessing proposed changes and associated impacts to quality.
- Providing a monthly status report to the State.

3.3.1.2. *Project Governance (State and County)*

- **CDSS Executive Sponsor** - The CDSS Children's and Family Services Division sponsors the New System. The Deputy Director of CFSD acts as the Project Sponsor and is responsible for defining the business needs and requirements, including legal and legislative (program) requirements that must be included in the New System. The Project Sponsor establishes the approval and funding of the scope, schedule, and budget for the project. While the CWS/CMS Project Director provides assistance to ensure the project meets state and federal requirements and is completed according to scope, schedule and budget; the Project Sponsor retains ownership and responsibility. Material changes to the project scope, schedule, and budget must be reviewed and approved by the Project Sponsor. The Project Sponsor must also approve the projects application update and change plans in response to the county Strategic Plan.
- **CDSS Executive Steering Committee** - The CDSS Executive Steering Committee provides executive leadership in setting California's strategic goals and priorities for the project. It is able to expedite issue resolution and risk mitigation at the highest level, and facilitates administrative decision-making. The CDSS Executive Steering Committee:
 - Develops a statewide strategy for the CWS/CMS and the New System.
 - Ensures the project meets State and federal program requirements.
 - Reviews executive-level project status updates including project issues and risks with statewide impact.
 - Monitors achievement of major project milestones.
- **CWS/CMS Project Director** - The Project Director is responsible for the successful delivery of the project office services to meet programmatic requirements defined by the Project Sponsor. The CWS/CMS Project Director, under general direction from the OSI Director within the CHHSA, plans and directs activities of the CWS/CMS project. The CWS/CMS Project Director has overall responsibility for the CWS/CMS Project Office, the New System project, the Re-hosting project, and the maintenance re-procurement effort. The CWS/CMS Project Director will provide overall direction to the New System Project Manager to ensure cohesive strategies, coordination of bridging activities, change management, and staff utilization. Responsibilities include oversight of development and management of all project processes both for new development and for sustaining maintenance, as well as

management of all resources assigned to the project: State staff and vendors. The Project Director is also responsible for maintaining a close working relationship with the project sponsor and county stakeholders to assess business needs and for identifying and proposing automation solutions to address those needs. Key to success of timely delivery of project commitments is the ability to define and manage each step of the System Development Life Cycle (SDLC) as it applies to both new development and maintenance.

- **Oversight Steering Committee** - Representatives from CDSS, OSI, and California's 58 counties comprise the Oversight Steering Committee. The CDSS Deputy Director of Children and Family Services chairs the Committee. The OSC:
 - Ensures the current CWS/CMS and the New System appropriately support the mission of child welfare services.
 - Sets overall policy direction so that the current CWS/CMS and the New System appropriately meet the needs of their customers.
 - Develops and updates the New System Strategic Plan and Annual Plan.
- **County Liaison** - The County Liaison works within the CWDA and will provide critical project continuity by continuing the county coordination and liaison activities throughout the development phases. The County Liaison will:
 - Coordinate and assist a variety of teams in conducting project tasks, including training, implementation, and conversion activities.
 - Identify and engage the appropriate County policy and program experts in the project, as they are needed for design and testing activities.
 - Ensure county-based business requirements are included in system planning, development, implementation, maintenance, operation, and utilization.
 - Ensure on-going communications with CWDA leadership and counties on system direction in order to articulate the counties' role and perspective as the primary user.
 - Coordinate with the Oversight Committee members to ensure consistent direction, priority setting, and communication between CWDA, the counties, the project sponsor, and the New System integrated team.
 - Monitor and assess county-based application performance metric and service level agreements.
 - Ensure that the county resources necessary for project success are identified.
 - Work with the counties to ensure that counties understand and provide the necessary local resources to ensure project success.
- **CDSS Information Security Officer (CDSS ISO)** - Under the general direction of the CDSS Deputy Director, Information Systems Division, the CDSS ISO is responsible to the Directorate for establishing and managing policies and procedures to ensure the continued

integrity of CDSS' fiscal systems and security of all information technology assets (hardware, software and data). Additionally, the CDSS ISO collaborates on projects and initiatives with officials at the state and local level. The CDSS ISO assists the Deputy Director in the oversight of CDSS IT projects (e.g. Child Welfare Services Case Management System (CWS/CMS), Statewide Automated Welfare System (SAWS), and the Electronic Benefits Transfer (EBT) System) hosted at DTS.

- **OSI Information Security Officer (OSI ISO)** - Under the general direction of the OSI Director, the OSI ISO is responsible for establishing and managing policies and procedures to ensure the continued integrity of security of all OSI information technology assets (hardware, software and data).

3.3.2. Project Planning Team Resource Needs

The following describes the resource needs for which funding support is being requested by the State for planning the implementation of the alternative recommended in the TAAA (Alternative 3). This section presents the State, county, and contractor resource needs associated with the New System planning phase and only includes costs for which funding is being requested.

3.3.2.1. Staff (Salaries and Benefits)

OSI State Project staff directly support the planning phase for the New System functionality and/or technical components. It includes salaries and benefits only (operating expenses and travel are included in other cost categories). OSI State staff provides program management, project management, and perform readiness activities for new development associated with the New System. Project management and oversight are the responsibility of the OSI New System Project Team. The New System Project Team must be ready to accommodate the System Integrator and position itself to provide oversight support from the first day the System Integrator is on board. Processes, procedures, and tools need to be tailored from existing best practices for contract management, risk management, and configuration management for the System Integrator. Review processes need to be established for receipt of System Integrator deliverables.

A breakdown of the OSI Project Staff IT positions shows new and existing as follows:

Table 128 – Total OSI Staff Planning

CLASSIFICATION	ROLE
Data Processing Manager IV (DPM IV)	OSI New System Project Manager
Senior Information Systems Analyst (Sr. ISA)	System Engineer /Contract Manager
Office Technician (OT)	Administration
Data Processing Manager III (DPM III)	Procurement Manager
Senior Information Systems Analyst (Sr. ISA)	Senior Procurement Analyst

CLASSIFICATION	ROLE
Staff Information Systems Analyst (SISA)	Procurement / Contract Analyst
Staff Programmer Analyst (SPA)	Procurement / Contract Analyst
Associate Government Program Analyst (AGPA)	Procurement / Contract Analyst
Staff Services Analyst (SSA)	Procurement / Contract Analyst

As a part of this request, it is necessary to have state staff dedicated to this project. *We request restored funding for the three GFP positions for SFY 06/07.*

- **New System Project Manager** - The OSI New System Project Manager, under general direction from the CWS/CMS Project Director within the OSI, plans and directs the New System Project and manages an effective multi-disciplinary project team. The New System Project Manager is dedicated full-time and responsible for project management of the planning, procurement, development, implementation, and ongoing maintenance and operation of the New System. The New System Project Manager is responsible for overall project management of the New System Project, and communicating with and implementing the program-related decisions of the CDSS and the OSC. The New System Project Manager will develop and maintain a collaborative relationship with CDSS to ensure appropriate programmatic input is obtained and utilized. The New System Project Manager will monitor project activities; develop, review, and revise approval documents for funding; identify and resolve issues; and mitigate and manage risk. The New System Project Manager conducts meetings with the OSI Executive Steering Committee and the OSC to report project status and issues, request assistance, receive feedback, and orient them to project requirements and needs.

Melody Hayes is a Data Processing Manager IV and is currently the Assistant Deputy Director over the New Project Integration section at the CWS/CMS Project Office. The New Project Integration section has responsibility for delivery of the Go-Forward Plan (GFP) projects, which include the CWS/CMS Re-Hosting to the Department of Technology Services, procurement of a new CWS/CMS maintenance and operations vendor, and completion of the TAAA effort. Upon approval of this PAPD, Ms. Hayes will assume the role of New System Project Manager while providing oversight to any remaining GFP activities.

Ms. Hayes has worked for the State of California in the information technology arena since 1983, with experience in a wide array of projects, in the role of systems analyst, programmer, technical team leader, and project manager. Ms. Hayes' experience as a Data Processing Manager and Project Manager began in 1990. Ms. Hayes completed the State Information Technology Manager's Academy and the Leadership for the New Millennium program at CSU, Sacramento. In addition, Ms. Hayes has completed both IEEE and PMI training.

Ms. Hayes has extensive experience managing large-scale information technology projects and has implemented project management best practices. Ms. Hayes has worked

extensively with State administrative entity control agencies in the coordination and oversight of IT projects. Her prior significant IT project experience includes:

- Paid Family Leave Project at EDD
 - Fraud Integrated Database Project at the California Dept. of Insurance
 - Tax Engineering and Modernization (TEAM) Project at EDD
 - Standard Automated Preventive Maintenance Project, California Parole Information Network Project, Health Information Project and Corrections Automated Materials Management Project at the California Dept. of Corrections
 - Admissions, Discharges, and Transfer System and the Cost Recovery System Interface at the California Dept. of Mental Health.
- **System Engineer/Contract Manager** - The System Engineer/Contract Manager will work with the New System Project Manager on an ongoing basis to ensure that all aspects of the contract are being properly executed and lead the management of system requirements. The System Engineer/Contract Manager will lead in monitoring the System Integrator's and all supporting contracted service contractors' ongoing performance and will evaluate work plans, staffing plans, and schedules; will oversee the validation of all System Integrator technical requirements to ensure the requirements are properly controlled and establish applicable processes to support this validation; monitor the work products of the project's System Architect and schedule unit workload accordingly. The System Engineer/Contract Manager will also assist in detailed budget management and completing APD updates. Legal Counsel will assist in contract administration or changes on an as-needed basis.
- **Office Technician** – The Office Technician will work within the planning team as administrative support. The Office Technician's primary duties are:
- Prepare and route documents as required to the CWS/CMS Project Office - Many documents are requested from the Project Office such as equipment orders, position descriptions, and building information. In coordination with the Project Manager create and supply documents as needed.
 - Assist with development of control agency documents - With input from technical staff, coordinate and finalize of documents. Track documents through external review processes and coordinate changes with the Project Manager.
 - Coordinate and schedule meetings - Schedule meetings as requested and send out meeting announcements.
 - Maintain Project Manager's calendar.

3.3.2.1.1. Staff OE&E

Operating expenses and equipment (OE&E) are based upon a \$13,900 annual amount for each OSI state position.

3.3.2.2. *CDSS Staff*

The New System Project is one of CDSS' highest Information Technology (IT) project priorities and the highest IT priority for the Children and Family Services Division. CDSS is the sponsor of the Project with both overall responsibility for the success and a major user of the system for purposes of child welfare program management and direct provision of services. Because of critical nature of the New System Project and the unique combination of roles reflecting both program management and direct service provider user perspectives, CDSS is fully committed to the success of and active participation in the New System Project.

The CDSS staff assigned to the CWS/CMS project have two responsibilities. CDSS staff assigned to the CWS/CMS project will work under the general direction of the New System project team when providing support to meet project goals and timelines in the development and review of project deliverables and documents. They also have the responsibilities to CDSS as project sponsor to assure the project is meeting overall program goals, as well as the federal single state agency, and responsibilities to county welfare departments as agents of the state in operating the CWS program.

The following CDSS staff have been identified as required New System Project resources necessary to ensure active participation by CDSS and success of the project. All costs in this category are directly attributed to the planning phase for the new system; resource needs for the implementation of the new system will be identified during the planning process and with the submission of the IAPD. Roles and responsibilities of CDSS staff are identified below.

Following is breakdown of the CDSS State New System Staff positions being requested.

Table 19 – Total CDSS Staff Planning

CLASSIFICATION	ROLE
Staff Services Manager III (SSM III)	CDSS Program Manager
Associate Governmental Program Analyst (AGPA)	Business Analyst
Social Services Consultant (SSC III)	Program Specialist
Senior Information Systems Analyst (Sr. ISA)	Project Oversight & Monitoring

CDSS is requesting the following positions be established for the planning phase of the new system. All positions are full-time unless otherwise noted.

- **CDSS New System Program Manager** - The CDSS Program Manager reports to the Project Sponsor and is part of the New System Project management team. The Program Manager works under the general direction of the Project Director for New System IT project-related activities. Under general direction from the Project Director, plans, directs, and oversees the day-to-day activities of CDSS staff assigned to the New System Project. The Program Manager works directly with the other Project Managers to ensure project success. The Program Manager works with the New System Project Manager to coordinate program-related efforts and to resolve inter-branch and inter-project issues. Acts as a business liaison to the OSI New System Project. The Program Manager is responsible for insuring that program-related contract or funding decisions are made and communicated to OSI, CDSS, and ACF as needed. The Program Manager will develop and maintain collaborative relationships with the OSI New System Project team, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. The Program Manager will monitor project activities; participate in the development, review, and revision of documents for approval and funding; identify and resolve issues; and assist in the mitigation and management of project risk. The Program Manager coordinates CDSS tasks, participates as part of the New System management team in briefings to the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed.
- **Business Analyst** - The Associate Governmental Program Analyst (AGPA) will work with the CDSS Program Manager and the Contract Manager on an ongoing basis as a Business Analyst to ensure that all aspects of the project scope, schedule, and budget are consistent with sponsor expectations. The AGPA responsibilities include:
 - Working with the Contract Manager to coordinate development and provide on-going monitoring of CDSS contracts for the New System.
 - Participating in change management decisions.
 - Reviewing detailed budget documents.
 - Participating in the development and review of all documents (i.e., RFP, APD) required in planning for the New System.
 - Serving as point person to coordinate ongoing correspondence to ACF on issues related to the New System.
 - Providing analysis and recommendations to the New System Project Manager on issues and problems as they arise.
- **Program Specialist** – The Social Services Consultant III will work with the CDSS New System Program Manager as a Program Specialist to insure that the New System meets state, federal, and county programmatic business needs. The Social Services Consultant responsibilities will include:
 - Reviewing state and federal regulation and keep abreast of changes as they occur.

- Meeting regularly with state program staff to identify system gaps and needs within the planned functionality changes.
 - Developing a working knowledge of and relationships with the Children and Family Services Division unit to insure that relevant staff are involved in critical decision-making with regard to planning for the New System.
 - Obtaining and coordinating input from program experts as issues arise in planning.
 - Ensuring that contradictory or competitive needs are brought to resolution.
 - Providing analysis and recommendations to the New System Project Manager on problems and issues as they arise.
 - Participating in all county input sessions.
 - Providing regular feedback to state and county program staff on decision and issue resolution.
 - Reviewing required document sections related to program descriptions, needs, or outcomes related to the New System
 - Overseeing the development of All County Letters or Information Notices, which relate to New System usage.
 - Participating in creation and review of training material created for end users.
- **Senior Information Systems Analyst** – The Senior Information System Analyst (Sr. ISA) will work under the supervision of the Information Systems Division (ISD) of CDSS where the person's primary responsibilities will be to provide project oversight of external contractors performing IV & V and IPOC for the New System. This workload will include writing of the RFP's for contracts, monitoring project activities, and attending all project meetings and Oversight Steering Committee meetings. The position will be required to provide ongoing ISD oversight staff responsibilities, including work with DGS through the RFP process for the IV&V and IPO contractors, contract management, deliverables review, weekly contractor meetings, and risk management review and reporting to the Chief Information Officer (CIO). The ISD Oversight staff will be the central point of contact for communications and resolution of issues between the contractors, OSI, County staff, and DGS. As the RFP for the New System is developed and procured, the ISD Oversight staff will provide OSI and CDSS Program staff Oversight consulting services to ensure inclusion of appropriate IV & V and IPOC.

3.3.2.2.1. Staff OE&E

Operating expenses and equipment (OE&E) are based upon a \$13,900 annual amount for each state position.

3.3.3. Other

3.3.3.1. CDSS Facilities, Minor Equipment, and Data Processing

Costs in this category are for facilities, minor equipment, and data processing for CDSS staff. The estimated costs for facilities are \$41,000 per year. The minor equipment cost and data processing cost are estimated at \$8,000 and \$2,000 and occur in the period of July 2006 through June 2007.

3.3.4. Other - Travel

3.3.4.1. County Staff Travel

Travel costs for twelve County Project Staff are based upon State travel rates for one week of travel per quarter for five quarters during the planning phase. The estimated cost for County Staff Travel during the planning phase is \$53,700.

3.3.4.2. CDSS Staff Travel

Budget for staff in-state travel will be required in estimated amount of \$40,500 for state staff during the planning phase. Travel costs for New System CDSS Staff is based upon flights to LA and Southern Regional Meetings and State travel reimbursement rates for attendance at four other Regional Committee Meetings for two staff per month.

3.3.4.3. OSI Staff Travel

Budget for staff in-state and out-of-state travel will be required for OSI staff during the planning phase. Travel costs for OSI Project Staff are based upon State travel rates for one week of travel per quarter of the planning phase. Planning activity out-of-state travel costs are estimated for three OSI Project Staff for 2 two-day trips each for airfare, hotel, and per diem. The estimated annual cost in this category during the planning phase is \$34,607. The annual travel portion of the Staff OE&E is \$8,055.

3.3.4.4. Contract Services

Contractors directly support the OSI New System Project Staff in their planning activities for the New System procurement, functionality/technical components, and project management processes.

- **RFP Assistance Services** – A vendor will be hired, beginning November 2006, to assist in the development of the RFP and the procurement process specifically to define technical requirements and validate functional requirements, develop the cost model and evaluation criteria. The estimated cost for this contract is \$500,000. RFP Assistance will focus on:
 - Validating current business, functional, technical, and architectural requirements starting with existing source documents.
 - Developing technical requirements at a level to scope costs, including new SACWIS functionality.

- Creating a baseline of technical requirements mapping the requirements to business problems, opportunities, and objectives.
 - Developing maintenance and operations requirements.
 - Developing statement of work.
 - Input and review of contract, costs, and evaluation criteria.
 - Developing of demonstration.
 - Developing of Service Level Agreement (SLA).
- **OSI County Consulting Contracts** – This category includes costs for services provided by three County Staff Consultants functioning as State project staff to directly support the development of the New System functionality and/or technical components, Adoptions, and Eligibility Determination. While reporting to CDSS, the County Consultant will work on-site full-time. The County Consultant is targeted to tasks that make the most of their familiarity with county business processes. Three positions will be required for planning phase participation beginning October 2006. The estimated cost per contract is \$115,200. The estimated total cost during the planning phase is \$748, 800. The positions will continue through implementation of the New System. The County Consultants' primary responsibilities will include:
- Assisting in development, validation, and prioritization of business requirements.
 - Assisting in RFP Evaluations.
 - Assisting a variety of teams in conducting project tasks, including training, implementation, and conversion activities.
 - Identifying and engaging the appropriate County policy and program experts in the project, as they are needed for design and testing activities.
- **CDSS County Consulting Contracts** – Management-level County Consultants will be required on a full-time basis to insure that the New System is effective and efficient within the county and State child welfare and adoptions setting; is consistent with program policies and business practices and meets the need of end users. The County Consultants will be housed at CDSS and will work closely with the Social Services Consultant in determining that the New System meets federal and State requirements and county programmatic business needs. The County Consultants will coordinate their work with the County Consultants housed at the OSI Project site. Two positions will be required for the planning phase beginning in October 2006. The estimated cost per contract is \$153,000 per year. The estimated total cost during the planning phase is \$663,000. The responsibilities of the CDSS County Consultants will include:
- Seeking CDSS input on system gaps and needs within the planned functional changes.
 - Attending county regional or CWDA meetings to seek input or provide feedback on decision and resolutions to issues.

- Participating in providing on-going CDSS communication to counties on development of the New System.
 - Providing analysis and recommendations to the Social Services Consultant and CDSS New System Program Manager on programmatic problems or issues as they arise.
 - Assisting in the development of All County Letters, Informational Notices, and training materials.
 - Reviewing and providing suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the New System.
- **Project Management Support Services** – As the CWS/CMS organization does not have the depth of resources and experience necessary to effectively provide project management support for a project of this size, scope, and complexity, Project Management Support services will be acquired for this one-time effort. Resources will be required to support the planning process for the period October 2006 through November 2008 and through project implementation. The Project Management Support Services costs for the planning activities are estimated to be \$2,505,880. The total Project Management Support Services contract estimates from planning through implementation are \$5,874,000. The following details resources needed and are based on Project Management support contracts of similar size and complexity:
- **Senior Project Manager** - The Senior Project Manager consultant has responsibility for ensuring the planning team successfully completes all planning and procurement tasks and deliverables as defined in the work plan. The consultant will secure necessary resources to complete planning and procurement tasks and will monitor all work performed by the vendor migration team.
 - **Project Management Office/Fiscal Lead** - The Project Management Office (PMO)/Fiscal Lead consultant will develop, track and monitor the work plan, establish and implement project management standards and processes, and lead the development of all financial and management portions of deliverables.
 - **Technical Lead Consultant** - The Technical Lead consultant will work closely with the Technical consultant to conduct analysis and provide expertise regarding all technical requirements and aspects of the project. The consultant will be responsible for the technical portions of all project deliverables. This position will also be responsible for identifying, documenting, and assessing technical issues as well as supporting risk identification and mitigation.
 - **Technical Consultant** - The Technical consultant will work closely with the Technical Lead consultant to conduct analysis and provide expertise regarding all technical requirements and aspects of the project. The consultant will assist in development of the technical portions of all project deliverables.
 - **Fiscal/Administrative Analyst** - The Fiscal/Administrative Analyst consultant will assist with work plan development and maintenance, tracking of issues and risks, development of deliverable standards and templates, editing and production of all project deliverables and preparation of financial related sections of key deliverables.

- **Independent Project Oversight Consultant Services** – The resources needed in this category are estimated at approximately 3% of total System Integrator costs. The percentage is based on that allocated for projects of similar size for California. IPOC needs are estimated for approximately three people at 60 hours each per month for the planning phase beginning October 2006. The IPOC cost for planning activities is estimated at \$606,658. The total IPOC contract estimates from planning through implementation are \$1,980,000.
- **Technical IV&V Services** – The resources needed in this category include contracted staff to conduct IV&V for the new system procurement finalization and independent review of the evaluation and selection process. This cost category is estimated approximately 10% of total system integrator costs for the implementation phase. IV&V costs for the planning phase are estimated for approximately 1.5 IV&V contractor personnel beginning March 2007. The IV&V Services cost for planning activities is estimated at \$655,200 for two resources. Estimated IV&V Vendor contract costs from planning through implementation are \$4,438,200.
- **System Architect Vendor** – The resources in this category are needed to ensure the architecture strategy for the New System fits within the State's overall architecture strategy. The System Architecture costs for the planning activities are estimated at \$270,000. The System Architect's primary responsibilities will include:
 - Developing an architecture strategy for the New System that fits within the State's overall architecture strategy.
 - Ensuring system adherence to technical requirements for design, development, testing, system performance, and operability.
 - Reviewing and accepting all deliverables associated with the technical aspects of the project (design, development, testing, system performance, and operability).
 - Participating in testing and quality control activities throughout the system lifecycle to ensure vendor complies with established standards.
- **DGS Fees** – The Department of General Services (DGS) assesses a fee of 2.56% on all purchases and contracts it processes. The total budgeted amount for the DGS Fees reflects costs for the RFP Office, DGS Analyst/Consulting fee, and other charges for processing procurements through the California Multiple Award Schedule (CMAS) system. The 2.56% fee covers the cost of processing each contract (i.e., contracts for RFP assistance contractor and project management support services) up to specified amounts for each type of contract. The estimated cost for this category during the planning phase is \$169,730.

3.3.4.5. County Program Staff

County staff needed during the planning phase will aid the State in requirements development to support creation of the RFP. The State expects to engage twelve county project staff to travel for one week per quarter to provide guidance and support during the planning period. These twelve staff will alternate based on county assignment and project needs. The County Program Staff have primary responsibilities to include:

- Assisting in Requirements Definition.

- Assisting in validating usability improvements such as improved navigation, mobility features, and other operational efficiency features.
- Participate as active members of the project team to gain familiarity that will prepare them to be effective during design review and testing activities.

3.4. PLANNING ACTIVITIES

During the 32 months of planning, the New System Project team will create project-specific project management deliverables, including the project management plan, communication plan, and risk management plan. They will further elaborate and delineate the system requirements, preparing the Request for Proposal (RFP), evaluating vendor proposals, and selecting a winning proposal.

3.4.1. Planning Initiation

Initiation is a 2-month effort to prepare the planning staff for completion of planning activities based on the aggressive project schedule (see section 3.6, table 6). The project initiation effort will include:

- Conducting a Concept of Operations (ConOps), per IEEE 1362, to scope and define the system in preparation for RFP development.
- Defining the assumptions and constraints: administrative, legal, programmatic, policy, architecture that will scope and constrain the system, interfaces.
- Evaluating applicability of constraints by the Project Management Support Vendor.

3.4.2. RFP Development and Procurement

RFP development and procurement is a 26-month effort. Completion of the New System RFP development and procurement process will be an effort involving all entities of the planning team (see section 3.3.1 – Project Organization). While OSI has management responsibility for the planning and execution of this project, the State has oversight responsibility and its project management approach is based on the formation of an integrated project team consisting of staff from OSI, CDSS, the counties, Independent Project Oversight Consultant (IPOC), Technical Independent Verification and Validation (Technical IV&V), and Project Management Support. OSI will utilize qualified staff and consultants to perform activities to complete the development and procurement of a New System vendor. The following sections identify the activities, which will be conducted during the planning phase.

3.4.2.1. Complete New System RFP Requirements

System requirements will communicate to the vendor community the business functionality and technical direction required in the New System. Requirements were defined at a high level during the feasibility analysis conducted during the TAAA Report effort and were derived from current CWS/CMS requirements, SACWIS requirements, and requirement review meetings with county and State program staff. The ConOps created during project initiation, the TAAA Report

requirements, and county input will be the basis for developing RFP requirements. In developing the total set of system requirements, the State will:

- Validate the State's and counties' assumptions and expectations regarding how the New System will support their business needs, including those currently supported by county external systems, and the four major missing SACWIS functions.
- Confirm and prioritize the "core" business processes that will be supported by the New Systems' technology solution.
- Analyze the business functions that occur within each core process and describe the level of automation required for each core function.
- Identify and prioritize functions or features that will make additional gains in program effectiveness, efficiency, and economy. These potential improvements include opportunities to aid the caseworker in their interaction with the New System, but do not include business process reengineering. CWS/CMS currently meets the basic business needs of the users. The underlying business processes and business rules are sound and it is not a goal of the New System is to modify business process unless there is significant justification.
- Summarize the high-level functional requirements for the New System.

The RFP assistance consultant will lead the effort to define the RFP requirements. A team comprised of CDSS, OSI, and County staff will work with the consultant to complete the requirements. RFP requirements will communicate the "bid to" requirements to the vendor community for proposals. Types of requirements include Administrative, Project Management, Architectural, Business, Contract, Functional, Infrastructure, Performance, and Technical.

3.4.2.2. *Request for Proposal Preparation*

The New System Procurement tasks include translating the business requirements into an organized and understandable set of technical requirements, creating a Statement of Work and contract, developing administrative requirements and evaluation criteria, and preparing the bidding instructions and rules governing competition for the New System RFP in accordance with State and federal statutes and policies. The requirements for the New System will be based on federal, state, and county standards, codes, policies, regulations, and procedures as well as CWS business process analysis. The services required in the New System RFP will comply with IEEE Standard 12207, Software Lifecycle Processes, which includes sound processes for project management and system development, implementation, and operation. The system development includes requirements for thorough analysis, design, code, testing, and software project management. State staff will build the RFP with the RFP assistance contractor aiding in creation of specific sections thereof (statement of work, contract, costs, evaluation criteria, and a level of requirements to scope costs).

3.4.2.3. *Procurement for the New System*

The RFP, which will serve as the New System's procurement document for development, implementation, and maintenance, will be developed upon approval of this PAPD and released upon approval of the IAPD. The RFP will be developed and structured based on California procurement process with the assistance of contracted staff. To support this type of

procurement process, the RFP will allow the respondents to propose the development methodology, technical solution/architecture, and development timeframe based on their understanding of the State's business needs requirements. This process will enable vendors to propose solutions and approaches that will provide increased system capabilities and provide a best-value procurement to the State and ACF.

The State's procurement philosophy and RFP will offer ongoing opportunities to interact with the vendor community to communicate the State's business and technical needs, and allow vendors to refine solutions in the best interests of the State focusing on effectiveness and efficiency in operation and economy in development and maintenance functions. These opportunities include:

- Question and Answer Period
- Vendor Conference
- Draft Proposals
- Confidential discussions
- Final Proposals
- Cost Proposals (opened last)

The State's proposal evaluation will be conducted in an iterative, interactive mode that will allow vendors to submit Draft Proposals, followed by refined Final Proposals. The State will work with each vendor as provided by the procurement and evaluation provisions of the RFP to assess and discuss any issues or points of clarification within each Draft Proposal. Vendors then will have the opportunity to revise their Proposals based on those discussions.

After the issuance of the RFP, Vendor conference and question and answer period, the following steps will be followed during the New System proposal evaluation process:

- Review of Draft Proposals – The State Evaluation team will review each Draft Proposal to identify areas where the proposals are non-responsive, or where further clarification is needed for the State to fully understand each vendor's proposed solution. As a result of this initial review, the Evaluation team will prepare an agenda of items to be discussed with each vendor, based on the issues identified and clarifications required.
- Confidential Discussions – The State will conduct separate confidential discussions with each vendor according to a pre-established and agreed-upon schedule. During the confidential discussion sessions, vendors will provide an introductory presentation and address the State's agenda of issues and requests for clarification. Members of the Evaluation team will pose additional follow-up questions to fully understand each vendor's responses.
- Evaluation of Final Proposals – Vendors will be provided an opportunity to revise their Draft Proposals to address any issues raised during confidential discussions by submitting Final Proposals for evaluation by the State. The State Evaluation team will evaluate each Final Proposal according to the criteria established in the RFP and preliminarily rank the proposals according to the methodology delineated in the RFP.

- **Key Staff Interviews/Demonstrations** – In conjunction with the confidential discussions, the State will interview key personnel identified in each vendor's proposal. The questions asked of the personnel will help determine their relevant level of skills, abilities, and experience. Situational business questions may also be included. The results of the interviews will be documented as additional input to the evaluation of the Final Proposals. In addition, the vendor will conduct a demonstration of their solution according to RFP requirements.
- **Evaluation of Cost Proposals** – Once the Final Proposals have been ranked, the Cost Proposals will be opened. The Cost Proposals will contain the vendor's pricing for the proposed services. The State Evaluation team will evaluate each Cost Proposal according to the criteria established in the RFP and develop a final ranking according to the methodology delineated in the RFP.
- **Documentation of Evaluation Results and Recommendation** – The State Evaluation team's rankings, and justification for the rankings, will be documented in individual Justification Reports and consolidated in an Evaluation and Selection Report (ESR). The ESR will detail the makeup of the Evaluation team, the process used for evaluation and ranking, the methodology followed for scoring, the justification for ranking each proposal in pre-established categories, and the rationale for recommending the apparently successful vendor.

3.4.2.4. *New System Proposal Evaluation*

The Project Office will prepare a New System Proposal Evaluation Plan that defines the evaluation criteria and point system. The plan also defines proposal handling and security procedures. Draft Proposals will be submitted and reviewed for adherence to the selected elements of the RFP. The Project Office will meet with each vendor and discuss items that need clarification and any defects. The vendor will then prepare a final proposal for final evaluation. The Project Planning Team will select a System Integrator for the New System based on "best value" where technical feasibility, project (management) feasibility, and cost/schedule will all be considered. After conducting the proposal evaluations according to the DGS approved proposal evaluation plan, the Project team will prepare an Evaluation and Selection Report for review and approval by OSI, CDSS, ACF, and DGS.

3.4.2.5. *Evaluation and Selection Report*

A Model Contract will be included in the New System RFP. When a winning bidder is selected, one New System contract will be finalized and approved. The subsequent contract will be a combination of fixed price and fixed rate tasks with enforceable standards, incentives, and remedies/penalties related to contractor performance. The New System contract will have a change process in case the scope of the work changes. The contract must be approved by DGS and ACF and reviewed by OSI and CDSS.

Concurrently, CDSS evaluates the New System contract system development notice impact analysis and cost estimate for approval.

3.5. PLANNING DELIVERABLES

The following tables show the project deliverables for planning and procurements:

Table 20 - Project Office Plans and Procedures – New System

TITLE	DESCRIPTION	WHEN	RESPONSIBLE PARTY
Supplementary Premise Information (SPI)	Annual update to the budget – includes New System	Planning phase with budget cycle	Contract Manager
Communication Management Plan	Defines communications responsibilities for the Project Office and Stakeholders.	Planning phase	Project Manager
Configuration Management Plan	Defines how the project office will maintain control of project baselines and items that must be tracked and managed in a formal, systematic fashion.	Planning phase	Project Manager
Contract Management Plan	Plan for contract oversight and change management.	Planning phase - First draft prior to the RFP release and final draft at contract award.	Contract Manager/Procurement Manager
Cost Management Plan	Plan defining how the project office will maintain fiscal control and items that must be tracked and managed in a formal fashion.	Planning phase	Contract Manager
Document Management Plan	Plan defining process and procedures for document management using the iManage tool.	Planning phase	Project Manager
Governance Plan	Identifies the project participants and establishes their roles, relationships, and responsibilities for decision-making, approvals, and issue resolution and escalation.	Planning phase	Project Manager
Implementation Advance Planning Document (IAPD) and Implementation Advance Planning Document Updates (IAPDU)	Budget plan and approval document for the Contractor Oversight and Implementation phases.	Planning phase with budget cycle	Contract Manager
Information Technology Procurement Plans (ITPP)	Plan defining the process and procedures for procuring an IT vendor for each contract associated to the New System.	Planning phase	Procurement manager
Master Project Plan	High level project plan	Planning phase	Project Manager
Quality Management Plan	Defines plans for verifying and validating Project Office and Vendor work products and	Planning phase - First draft prior to the RFP	Project Manager

Planning Advance Planning Document – State Version
April 10, 2006

TITLE	DESCRIPTION	WHEN	RESPONSIBLE PARTY
	processes	release and final draft at contract award.	
Planning Advance Planning Document (PAPD) and Planning Advance Planning Document Updates (PAPDU)	Budget plan and approval document for the Planning and Procurement phases of the project.	Planning phase with budget cycle	Contract Manager
Project Charter	Establishes strategic direction of the project by defining project goals, scope, and roles and responsibilities.	Planning phase	Project Manager
Requirements Management Plan	Plan describes the approach, processes, and procedures used to manage the system requirements.	Planning phase	System Engineer
Risk Management Plan	Defines the process used to implement the methodology for risk management, including identification, quantification, and responded to project risks	Planning phase	Project Manager
Schedule Management Plan	Defines the process used to implement the methodology for establishing, managing, and modifying the Master Project Schedule and baseline Master Project Schedule.	Planning phase	Project Manager
Work plan	Detailed list of project activities, relationships, due dates, and staff assignments	Planning phase	Project Manager

Table 13 – New System Procurement Documents

TITLE	DESCRIPTION	WHEN	RESPONSIBLE PARTY
Request for Proposals for System Integrator	Defines requirements, proposals, and proposal evaluations. Also contains Model Contract.	Planning Phase	Project Manager
Statements of Work for RFP Assistance, PM Support Services, IPOC, Technical IV&V, County Consultants, Legal, and Quality Assurance	Defines responsibilities and deliverables.	Planning Phase	Project Manager
Proposal Evaluation	Defines plans and	Planning Phase	Procurement Manager

Planning Advance Planning Document – State Version
April 10, 2006

Plan	procedures to the evaluation of proposals submitted by bidders.		
Proposal Selection Report	Results of the proposal evaluation	Planning Phase	Procurement Manager
Prime Contract for System Integrator	Prime contract negotiated with winning bidder.	Planning Phase	Procurement Manager

3.6. PLANNING ACTIVITY SCHEDULE

The following tables identifying completed and future planning milestones indicate the State's current best estimate for timely completion of planning activities.

Table 14 – Completed Planning Activities

PLANNING MILESTONES	COMPLETION DATE
Preliminary Title IV-E, Title IV-A, and Title XIX Requirements Defined	March 2003
Technical Architecture Strategic Plan Published	April 2003
Title IV-E Interface – Data Element Requirements Defined	July 2003
Adoptions Requirements Defined	February 2004
ACF Approval Received for Go-Forward Plan and associated As-Needed APDU	October 2004
ACF Support Received for Technical Architecture Alternatives Analysis	May 2005
New System Project Team Established	May 2005
PAPD Development	January 2006

Table 15 –Remaining Planning Activities Schedule

HIGH-LEVEL PLANNING ACTIVITY	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
Receive DOF and ACF Approval of PAPD	January 2006	May 2006
Project Initiation	July 1, 2006	July 1, 2006
RFP Assistance Contract		
Develop statement of work	July 2006	July 2006
Develop Information Technology Procurement Plan (ITPP) – State Document	July 2006	July 2006
Conduct CMAS	July 2006	July 2006
Evaluate Proposals	August 2006	August 2006
Request and Receive Approval from Control Agencies	September 2006	October 2006
Award RFP Assistance contract	November 2006	November 2006
IPOC Contract		
Develop statement of work	July 2006	July 2006
Develop Information Technology Procurement Plan	July 2006	July 2006

Planning Advance Planning Document – State Version
April 10, 2006

HIGH-LEVEL PLANNING ACTIVITY	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
(ITPP) – State Document		
Conduct Procurement	July 2006	August 2006
Evaluate Proposals	August 2006	September 2006
Request and Receive Approval from Control Agencies	August 2006	September 2006
Award IPOC contract	October 2006	October 2006
OSI County Consultant Contracts		
Develop Recruitment Letter and Post to Web	July 2006	July 2006
Develop Statement of Work	July 2006	July 2006
Review Nomination Forms	July 2006	August 2006
Request and Receive State Approval	August 2006	August 2006
Submit to County for Board of Supervisors Approval	September 2006	September 2006
Commence OSI County Consultant Contracts	October 2006	October 2006
CDSS County Consultant Contracts		
Develop Recruitment Letter and Post to Web	July 2006	July 2006
Develop Statement of Work	July 2006	July 2006
Review Nomination Forms	July 2006	August 2006
Request and Receive State Approval	August 2006	August 2006
Submit to County for Board of Supervisors Approval	September 2006	September 2006
Commence CDSS County Consultant Contracts	October 2006	October 2006
Project Management Support Services Contract		
Develop RFP	July 2006	July 2006
Develop ITPP	July 2006	July 2006
Release RFP	July 2006	July 2006
Bidder's Conference	August 2006	August 2006
Evaluate Proposals	August 2006	August 2006
Request and Receive Approval from Control Agencies	September 2006	September 2006
Award PM Support Services contract	October 2006	October 2006
Technical IV&V Contract		
Develop RFP	July 2006	September 2006
Develop ITPP	August 2006	August 2006
Release RFP	September 2006	September 2006
Bidder's Conference	October 2006	November 2006
Evaluate Proposals	November 2006	December 2006
Request and Receive Approval from Control Agencies	January 2007	February 2007
Award Technical IV&V contract	February 2007	February 2007
CDSS Legal Contract		
Develop statement of work	July 2006	July 2006
Develop Information Technology Procurement Plan	July 2006	July 2006
(ITPP) – State Document		
Conduct Procurement	July 2006	August 2006
Evaluate Proposals	August 2006	September 2006
Request and Receive Approval from Control Agencies	August 2006	September 2006
Award CDSS Legal contract	October 2006	October 2006
Fill New OSI Staff Positions		
Develop Job Descriptions	July 2006	July 2006

**Planning Advance Planning Document – State Version
April 10, 2006**

HIGH-LEVEL PLANNING ACTIVITY	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
Advertise Positions	July 2006	July 2006
Interview Candidates	July 2006	July 2006
Offer Positions	July 2006	July 2006
Request/Identify County Participants for Requirements Development	July 2006	November 2006
Project Initiation		
Conduct ConOps	October 2006	February 2007
Identify New System Assumptions and Constraints	October 2006	November 2006
RFP Development		
Develop ITPP	October 2006	November 2006
Research and Develop Business and Technical Requirements	October 2006	May 2007
Identify Process Improvement	October 2006	April 2007
Develop Statement of Work, Statement of Requirements, and Sample Agreement	December 2006	July 2007
Finalize Evaluation and Selection Tools	August 2007	October 2007
Finalize Evaluation Training Manual	August 2007	October 2007
Finalize RFP, Sample Agreement and Proposal Preparation Instructions	August 2007	September 2007
Finalize and Submit RFP to State and Federal Governments for Approval	August 2007	October 2007
IAPD Development		
Revalidate Cost Benefit Analysis	January 2007	May 2007
Develop IAPD	February 2007	July 2007
Request and Receive ACF Approval	August 2007	October 2007
Release RFP & Proposal Evaluation		
Mail Notice of Intent to Release	October 2007	October 2007
Advertise RFP and Post to DGS Web Page	October 2007	October 2007
Bidders' Conference	October 2007	December 2007
Select and Train Evaluation Team	October 2007	November 2007
Draft Proposals Due	December 2007	January 2008
Prepare Formal Response to Bidders' Questions	October 2007	January 2008
Evaluation of Draft Proposals (Assumes 5 Valid Bids are Received)	December 2007	February 2008
Site Visits, Oral Presentations and Demos	December 2007	February 2008
Review Final Proposals	March 2008	May 2008
Request and Receive Approvals to Negotiate with Selected Vendor	June 2008	June 2008
Negotiate with Selected Vendor	June 2008	August 2008
Vendor Selection	August 2008	August 2008
State and Federal Approval Process	September 2008	November 2008
Quality Assurance Services Contract		
Develop statement of work	October 2007	March 2008
Develop ITPP	April 2008	April 2008
Release RFP	May 2008	May 2008

HIGH-LEVEL PLANNING ACTIVITY	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
Bidder's Conference	June 2008	July 2008
Evaluate Proposals	July 2008	August 2008
Request and Receive Approval from Control Agencies	September 2008	November 2008
New System Plans and Processes Development	October 2006	September 2007
IAPDU Development		
Develop IAPDU	May 2008	August 2008
Request and Receive ACF Approval	September 2008	November 2008

Table 16 –Projected High-Level Implementation Activities Schedule

HIGH-LEVEL IMPLEMENTATION ACTIVITY	ESTIMATED START DATE	ESTIMATED COMPLETION DATE
System Development	December 2008	September 2010
System Test	February 2010	July 2010
User Acceptance Test	August 2010	November 2010
Training/Change Management	December 2010	November 2011
Conversion	February 2009	November 2011
Pilot Test	December 2010	January 2011
Statewide Implementation	February 2011	November 2011

The Project Management Plan for the implementation phase will be included in the IAPD along with the detailed milestone schedule, as well as updates to planning costs.

4. COST ALLOCATION AND TOTAL PROJECT COST

4.1. COST ALLOCATION

The purpose of the Cost Allocation Plan is to distribute the costs of the project across each funding agency in accordance with current federal and State funding agreements. The goal of the plan is to achieve an equitable distribution of costs based on OMB A-87.

The basic tenet of the cost allocation methodology for the project is to distribute costs in such a way that the benefiting program is charged directly for the automated support provided for that program. If a single program benefits from the automated support then 100% of the costs associated with that automation are charged to that program.

The planning activities outlined in this PAPD are deemed to meet the criteria for being considered SACWIS, and allocated in conformance with OMB A-87 and the policy guidelines contained in ACF-OISM-001 and ACF-OSS-05. Cost allocation will be in conformance with CDSS' and OSI's federally approved Cost Allocation Plans.

4.2. TOTAL PROJECT COST

Planning, Development, Implementation, and one year of Maintenance and Operation costs for the New System are estimated to be approximately \$234,608,952; the total one-time IT cost is estimated to be \$130,955,286. A detailed estimate for New System phases subsequent to the planning phase will be included in the State's IAPD; submitted with the RFP and updated with the request to award contract. California will procure its replacement SACWIS via open competitive procurement. The procurement strategy will allow vendors to propose existing systems or new system development. For purposes of this PAPD, the TAAA serves as research information to assist with cost estimation.

Appendix A - TAAA Cost Benefit Analysis

APPENDIX A -TAAA COST/BENEFIT ANALYSIS

The cost/benefit analysis was one sub-component of the TAAA. In lieu of attaching the entire TAAA report, this appendix includes the cost/benefit analysis extracts from that report and summarizes the approach and conclusions. It is important to note that once the cost/benefit analysis was completed for the TAAA, the State updated its strategic direction and refined its cost estimates. Additionally, the costs included in the analysis included the current CWS/CMS costs to provide the total cost of ownership view and comparison. For the IAPD, these costs were extracted, as funding is not being requested for the current CWS/CMS, only for the New System and its implementation strategies. (Costs and funding for the current CWS/CMS will continue to be requested through a separate APDU.) Therefore, costs and benefits presented for the recommended alternative differ from those presented for funding requests in the IAPD.

A.1 ALTERNATIVES CONSIDERED

The TAAA was conducted in response to ACF requirements and the Budget Act of 2004 (Chapter 208, Statutes of 2004). The TAAA provided quantitative data to support a technical architecture decision that would improve service delivery capabilities, meet the goals of the CWS/CMS Strategic Plan, and be cost effective.

As part of the analysis, the TAAA Team examined the current architecture, web-based architectures currently supporting similar case management systems, business processes, and conducted workshops and interviews with key State stakeholders, county user technical staff, and IBM technical staff. Additionally, the technical team developed a vendor survey and conducted interviews with vendors providing development and/or maintenance services on web-based systems to validate findings and refine proposed models. Finally, the analysis of the size of the current CWS/CMS application (function points) provided critical information that addressed overall feasibility of the alternatives.

Based on the analysis of available information and subject matter expertise, the TAAA Team developed architecture scenarios for the target state of the three alternatives and confirmed the gaps between the baseline and target state. The TAAA Team started with the three general alternatives required by the TAAA Request for Proposals (RFP) and refined those alternatives in order to provide a robust architectural framework for analysis and cost estimation. The TAAA Team incorporated screening requirements (i.e., mobility, remote access, etc.) and normalized the alternatives to ensure that a direct cost comparison could be made. Each alternative was constructed in a way that maximized the viability or feasibility of that alternative. The three alternatives considered in the TAAA were:

- **Alternative 1** – Continue with the current CWS/CMS technical architecture.
- **Alternative 2** – Evolve the current CWS/CMS technical architecture to a web services based technical architecture over time.
- **Alternative 3** – Continue maintenance and operations (M&O) of the current CWS/CMS while simultaneously building a new SACWIS application using a web services based technical architecture.

In addition, since the current CWS/CMS also lacked some of the functionality required by SACWIS regulations, the State required an assessment of the feasibility and impact of completing the following four major unfulfilled SACWIS requirements:

- Adoption case management
- Automated Title IV-E eligibility determination
- Interfaces for Title IV-A (CalWORKs), Title IV-D (Child Support), Title IV-E (Foster Care) and Title XIX (Medi-Cal) systems
- Financial management (Out-of-Home Care and Adoption Assistance Payments)

A.2 GLOBAL ASSUMPTIONS

To establish feasible alternatives that can be equitably compared to the criteria, the TAAA Team established common assumptions for all three alternatives as follows:

- The current deficient remote access infrastructure will be enhanced by the addition of Server Based Computing (SBC) infrastructure to the current environment (see description of SBC in paragraphs below). This will provide for browser-based access to the existing functionality on the fat client. With this enhancement, remote and roaming users will be able to more easily use the system from remote locations or from the field.
- The analysis assumes that the Project will not provide remote access devices (e.g., PDAs, cell phones, etc.).
- Adoptions case management functionality will be required for each alternative as soon as possible.
- The State will enhance the current data warehouse to support common reporting needs of staff in all counties.
- The CWS/CMS will be hosted at the State Data Center.
- Internal users will grow at a rate of 3% per year.
- The number of external users is assumed to be 150 at Year 1, and will grow annually at a rate of 120% (4,800 external users in Year 10).
- Over time, remote access users will grow to approximately 50% of case workers, which will affect network bandwidth peak utilization periods.
- Data will grow at historical rates of approximately 10% per year; SACWIS will add an initial 10% of data and then grow at a rate of 10% per year.
- Approximately 300 function points will be added on an annual basis to enhance user functionality.
- New SACWIS functionality will go through a standard development life cycle.

- All email communications will continue on the Outlook/Exchange infrastructure.
- Ongoing maintenance and critical enhancements will be required in the old CWS/CMS environment until any new system is deployed.
- Maintenance of desktops and file servers in dedicated counties will continue to be a requirement supported by the State.
- For each alternative, ongoing maintenance and operations services will be structured to support competitive bidding.
- Assuming the State's successful implementation of the four missing SACWIS functions in CWS/CMS, the State will be able to successfully negotiate all other SACWIS compliance issues with federal stakeholders.
- Eligibility determination will be performed on the SAWS systems and a two-way interface between the SAWS systems and CWS/CMS will be created to satisfy SACWIS eligibility requirements.
- Identified savings for all alternatives will be reinvested back into the CWS/CMS program to reduce the workload of the current social workers who are currently working overtime, as documented in the SB 2030 report¹⁵.

A.3 ALTERNATIVE 1

In Alternative 1, the State will continue with the current technical architecture and optionally incorporate remaining unfulfilled county business requirements to achieve SACWIS compliance. Under this alternative, the State will continue to maintain and upgrade the existing CWS/CMS application system within the limits of the current fat client technical architecture employed by CWS/CMS. There will be no major architectural overhaul of the CWS/CMS over the next ten years. All major technical components and development environments of the system will continue to be used for the near future. The CWS/CMS application can also be optionally enhanced to address the unfulfilled SACWIS functionality (i.e., Adoptions Case Management, Interfaces, Automated Title IV-E Eligibility Determination, and Financial Management) using the current architecture. This alternative is defined by the following assumptions:

- There will be no major architectural overhaul to the CWS/CMS over the next ten years. All major technical components and development environments of the system will continue to be used in the future.
- The target architecture in this alternative will continue to be a fat client / server architecture. In the current architecture, the majority of business logic, business rules, and presentation logic reside on the client workstation running Windows 2000.

¹⁵ The SB 2030 report clearly outlines that the average work time per employee was 84 hours for a two-week period.

- The current environment limits the ability to incorporate third-party components and services.
- The maintenance service provider will most likely provide new SACWIS functionality.

- New technologies will not be incorporated for development of new SACWIS functionality.
- Adoptions case management costs for this alternative will be based on previously estimated costs documented within the 2004 Expanded Adoptions Subsystem (EAS) Post-Implementation Evaluation Report (PIER).
- Estimates for additional functionality

The TAAA Team estimated the ten-year costs for Alternative 1 using the approved 2004 APDU costs allocated for period of SFY 2006/07 CWS/CMS costs as the baseline. In its approach to estimating costs for this alternative, the TAAA Team was very conservative. That is, known costs previously developed for feasibility studies and APDUs were used, where appropriate, in lieu of re-estimating costs. Adjustments to the baseline CWS/CMS costs were only made to reflect anticipated growth of 1% annually. Growth for each area was based on financial trends over the past three years.

Alternative 1 Cost Assumptions

The following are the key assumptions that helped to define the costs for Alternative 1:

- For the purposes of this analysis, the TAAA Team assumed that there are no current one-time development costs and did not include costs for potential future development efforts outside of this alternative.
- Current ongoing M&O costs will continue and increase at a growth of 1% per year.
- All new costs will be added to existing costs.
- No new architecture or re-development of existing functionality is required.
- SACWIS functionality is related solely to automated system features that support county processes and does not imply funding.
- Per the timeframe identified in the EAS PIER, Adoptions functionality will be developed and deployed between July 2007 and December 2011.
- The effort to develop New SACWIS Functionality includes the cost and effort of developing Eligibility functionality/interfaces, Financial Management functionality/interfaces, and Interfaces to Title IV-A (CalWORKs), Title IV-D (Child Support Enforcement), and Title XIX (Medi-Cal).
- Eligibility functionality/interfaces will be developed and deployed between July 2008 and June 2011, Financial Management functionality/interfaces between July 2009 and June 2011, and Interfaces between July 2009 and June 2011.
- The 300 additional function points per year will be developed beginning July 2009.
- One (1) State manager will be assigned to manage the contracted staff providing development services on behalf of the HHSDC State staff.
- CDSS staff will provide policy direction and guidance during development.

- Three (3) staff will support the Adoptions, SACWIS, and Data Warehouse development efforts. Two (2) of these staff will transition to the M&O organization as part of continuing support for the Adoptions and SACWIS functionality.
- Additional facilities costs will only be applied to the development of the remote access infrastructure and data warehouse. All other facility costs have been included in the projected vendor rates.
- State Data Center hosting service costs will continue at the current level, as the addition of Adoptions and SACWIS functionality will not result in the need for addition hardware or equipment to be hosted.
- State Data Center WAN costs will increase as a result of increasing the number of sites by 5% each year.
- County participation will include project, conversion (data validation and manual conversion), and implementation staff during the development period for Adoptions and SACWIS functionality.
- Vendor costs for Adoptions were based on the costs outlined in the CWS/CMS Expanded Adoptions Subsystem (EAS) Post Implementation Evaluation Report (PIER).
- Timeframes and the level of effort for vendor costs for the development of SACWIS functionality were scoped based on the information contained within the CDSS Title IV-E Eligibility Determination System Feasibility Study Report. Actual costs were based on the number of function points identified for financial management, Title IV-E eligibility, and interfaces and the average current vendor rate per function point.
- Hardware and software will be purchased to support the development and maintenance efforts, including workstations/laptops, servers, and development and productivity software.
- No additional production hardware or software is required to support the development or operation of the new functionality.
- Remote access infrastructure and data warehouse hardware will be housed at the State Data Center.
- All host hardware and software will be hosted at the State Data Center.
- Current contracted goods and services will continue and additional QA, IV&V, integration services, and training contractors will be added to the development of each new function. Although the cost of existing contracts has been continued over the ten-year period to provide a level of contractor coverage, no additional QA or IV&V services will be required for the maintenance of any new function.

Alternative 1 Ten-Year Cost

The following table illustrates the current costs projected over ten years and the total ten-year costs for this alternative.

Table 11 - Projected Current and Total Ten Year Costs for Alternative 1

	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	SFY 2015/16
Current CWS/CMS Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.55	\$ 129.61	\$ 130.70	\$ 131.79
One-Time Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
On-Going Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.55	\$ 129.61	\$ 130.70	\$ 131.79
Costs	\$ 134.42	\$ 133.05	\$ 157.30	\$ 170.26	\$ 146.54	\$ 146.80	\$ 147.65	\$ 149.02	\$ 150.39
One-Time Costs	\$ 10.45	\$ 4.39	\$ 27.09	\$ 37.24	\$ 9.15	\$ 6.28	\$ 6.27	\$ 6.27	\$ 6.27
Development of Adoptions Functionality on Existing Architecture	\$ 0.99	\$ 0.99	\$ 16.35	\$ 18.07	\$ 2.87	\$ -	\$ -	\$ -	\$ -
Additional Costs to Develop SACWIS Functionality on Existing Architecture	\$ -	\$ 2.15	\$ 3.99	\$ 12.87	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Costs to Develop New Business Functionality on Existing Architecture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ 5.49	\$ 5.36	\$ 5.36	\$ 5.35	\$ 5.35	\$ 5.35	\$ 5.35
- Mobility/Remote Access	\$ 2.39	\$ 0.33	\$ 0.34	\$ 0.02	\$ -	\$ -	\$ -	\$ -	\$ -
- Data Warehousing	\$ 7.07	\$ 0.93	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92	\$ 0.92
On-Going Costs	\$ 123.96	\$ 128.65	\$ 130.20	\$ 133.02	\$ 137.38	\$ 140.52	\$ 141.38	\$ 142.75	\$ 144.12
Current On-Going Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.55	\$ 129.61	\$ 130.70	\$ 131.79
New Additional M&O	\$ -	\$ 0.09	\$ 0.12	\$ 0.12	\$ 0.13	\$ 0.13	\$ 0.14	\$ 0.14	\$ 0.14
Additional On-Going Costs for Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ 1.45	\$ 2.19	\$ 2.45	\$ 2.48	\$ 2.48
Additional On-Going Costs for New SACWIS Functionality	\$ -	\$ -	\$ -	\$ 0.09	\$ 1.63	\$ 1.59	\$ 1.58	\$ 1.58	\$ 1.58
Additional Costs to Maintain New Business Functionality on Existing Architecture	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ 0.03	\$ 0.03	\$ 0.80	\$ 0.90	\$ 0.97	\$ 1.06	\$ 1.15	\$ 1.15
- Mobility/Remote Access	\$ -	\$ 1.05	\$ 1.38	\$ 2.08	\$ 2.06	\$ 1.91	\$ 2.25	\$ 2.11	\$ 2.11
- Data Warehousing	\$ 0.19	\$ 3.00	\$ 3.21	\$ 3.46	\$ 3.72	\$ 5.18	\$ 4.29	\$ 4.60	\$ 4.60

(Note: Costs shown in millions of dollars)

Alternative 1 Benefit Assumptions

The following are the key assumptions for all benefits in Alternative 1:

- All benefits will begin 12 months after the functionality has been implemented. Because Alternative 1 is a continuing system, all current savings will continue and be built upon with the additional benefits from added functionality.
- All benefits drivers and variables were obtained from documented sources to ensure validity of benefits.
- The savings identified will be reinvested back into the CWS/CMS program to reduce the workload of the current social workers that are currently working overtime as documented in the SB 2030 report .

Alternative 1 Quantitative Benefits

The quantitative savings/benefits that Alternative 1 will be able to take advantage of are:

- Current System Savings – Because Alternative 1 is the continuation of the existing system, the current system savings have been included in the total benefits available to this alternative. The current system savings were based on anticipated savings identified in the approved 2004 APDU and projected for the ten-year period based on a three-year growth trend of benefits of 3%. Because Alternatives 2 and 3 are considered new development efforts, this category will not apply to those alternatives.
- Increased Productivity – Alternative 1 will be able to take advantage of benefits associated with:
 - Mobility – Technology to support PDAs for the social worker in the field increases productivity. If the social worker performs an additional 25 minutes per week of work as a result of having mobile technology and 50% of the work force utilizes this technology, \$3,723,720 will be recognized in savings annually. It is anticipated that in the first year of benefit realization only 30% of the work force will use this technology and receive benefits of \$2,234,280. In the second year, 40% of the work force is anticipated to take up the use of this technology, increasing savings to \$2,979,040. In the third year, 50% of the work force will use the technology and full benefit realization (\$3,723,720) will occur from that point forward.
- Program Savings – The following program savings are anticipated to occur as a result of implementing Alternative 1:
 - Automate Adoptions Case Management Tasks – The manual processes of managing adoption cases can be decreased through automation. The average worker spends time each day performing a variety of manual tasks that can be eliminated or improved. With implementation of a full case management system, data will be available to facilitate the overall adoption case management process. Adoption homes will be identified faster. Information will be readily available for the social worker to answer questions and facilitate adoptions. The average worker saves time if the information is readily available and organized to assist the social worker in the overall facilitation of the adoption

process. A conservative estimate of a 5% overall time savings is estimated for each case, with an annual caseload of 7004 resulting in a savings of \$742,191 annually.

- Automated Interfaces – The process of acquiring, compiling, and delivering (i.e., faxing, hand carrying, telephoning, etc.) information can be a time consuming process for the social worker especially where there are multiple organizations requiring similar information. The social worker spends time each day performing tasks that can be eliminated through a two-way interface.
 - ❖ Title IV-A: CalWORKs Program – The CalWORKs program is California's largest cash assistance program for children and families with an annual caseload of 730,000 . The social worker searches SAWS when initial abuse allegations are received, and through the life of a case for integrated case management. This task is estimated at 5 minutes per case. Elimination of this task through automation will result in a total savings of \$2,569,600 annually.
 - ❖ Title IV-D: Child Support – The child support program establishes and enforces court orders for child, spousal, and medical support from absent parents. The social worker searches for parental information to help make placement decisions. This task is estimated at 5 minutes per case with an annual caseload of 74,283. If this information is automatically searched and provided to the social worker, a total annual savings of \$261,476 will result.
 - ❖ Title XIX: Medi-Cal Program – Medi-Cal, California's Medicaid program, is a key component of California's health care delivery system. The social worker searches for information on each child to determine whether the child is already receiving Medi-Cal. This task is estimated at 5 minutes per case with an annual caseload of 74,283. Elimination of this task through automation will result in a total savings of \$261,476 annually.
- Automated Title IV-E Eligibility Determination – The automation of the eligibility information sharing process will eliminate or improve several tasks, which will result in savings.
 - ❖ Eliminate the Manual Process of Delivering Information to Eligibility – The manual process of delivering (i.e., faxing, hand carrying, telephoning, etc.) information to the eligibility department can be decreased through automation. The average social worker spends 10 minutes delivering eligibility information per week. The number of FTEs minus Los Angeles (removed Los Angeles from the equation because Los Angeles already has a one-way interface for eligibility) is 5,853. The elimination of the manual data-sharing task through automation will result in a total savings of \$2,317,788 annually.
 - ❖ Automate the Data Entry Process of Eligibility Data – Once the eligibility division performs the calculations, the information is returned to the social worker who then manually enters the results. Through a two-way interface with the eligibility department, this task can be eliminated. The average worker spends 5 minutes per case performing data entry and the annual caseload of foster care children minus Los Angeles (removed Los Angeles from the equation because Los Angeles already has a one-way interface for eligibility) is 45,313. The eligibility process occurs once every six (6) months . Automatically importing the eligibility results will realize a

reduction of 50% in the time the social worker must work with the case. The time savings recognized through the automation of this task will result in a total savings of \$159,502 annually.

The total benefits for the ten-year period are shown in the following table.

Table 10 - Total Ten Year Benefits for Alternative 1

	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	
Benefits	\$ 68.84	\$ 72.41	\$ 76.82	\$ 77.57	\$ 80.55	\$ 90.80	\$ 93.98	\$ 96.50	\$
Current Savings	\$ 68.84	\$ 72.41	\$ 74.59	\$ 74.59	\$ 76.82	\$ 81.50	\$ 83.95	\$ 86.47	\$
Current System Savings	\$ 68.84	\$ 72.41	\$ 74.59	\$ 74.59	\$ 76.82	\$ 81.50	\$ 83.95	\$ 86.47	\$
Increased Productivity	\$ -	\$ -	\$ 2.23	\$ 2.98	\$ 3.72	\$ 3.72	\$ 3.72	\$ 3.72	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ 2.23	\$ 2.98	\$ 3.72	\$ 3.72	\$ 3.72	\$ 3.72	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Program Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.57	\$ 6.31	\$ 6.31	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.74	\$ 0.74	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.57	\$ 5.57	\$ 5.57	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
System Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$

(Note: Benefits shown in millions of dollars)

Alternative 1 Breakeven

Alternative 1 is the augmentation of the current system. Therefore, previously incurred and realized costs and benefits for this system were added to the cumulative total to provide the truest picture of this alternative. In the current environment, recent adjustments downward in the cumulative total projected benefits indicate that the current system will not breakeven. Moreover, as shown in this graph, Alternative 1 will not reach a payback point, even with the addition of the new functionality and associated benefits.

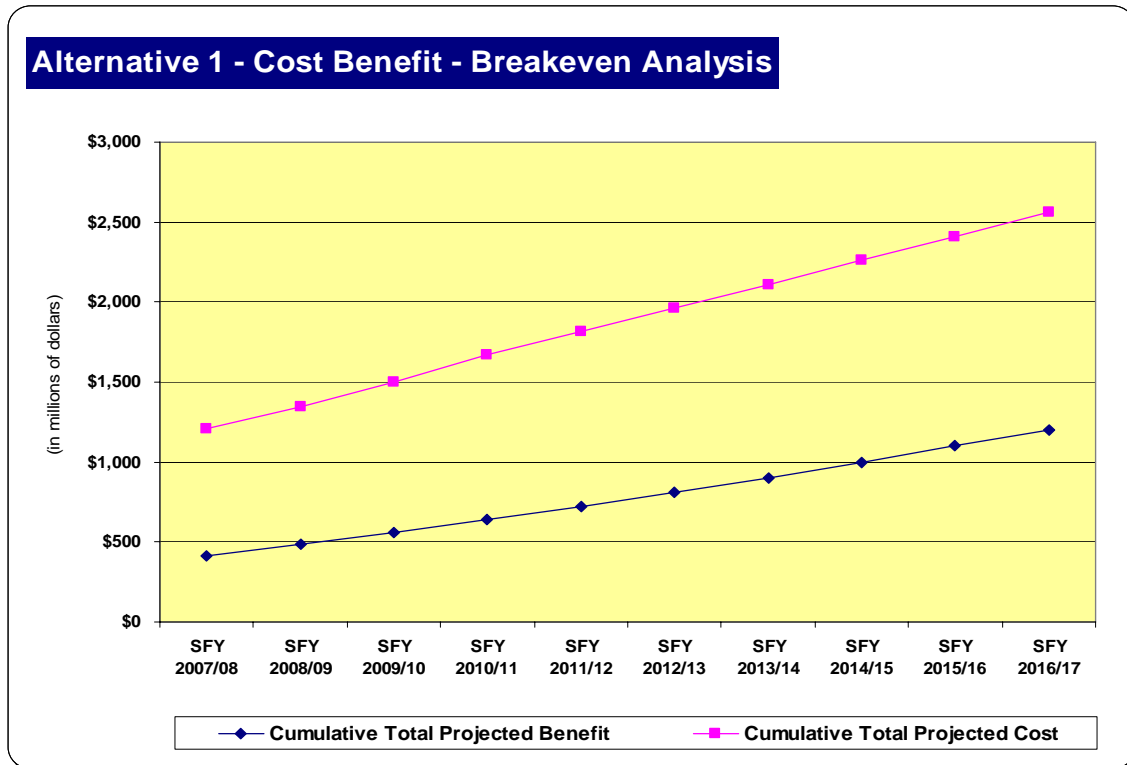


Figure 1 – Alternative 1 - Cost Benefit - Breakeven Analysis

A.4 ALTERNATIVE 2

In Alternative 2, the State will evolve the existing CWS/CMS application to a web services based SOA over time while optionally delivering the remaining SACWIS functionality with a browser-based user interface accessing the SOA using web services.

This alternative proposes that the State continue to maintain and upgrade the existing CWS/CMS while evolving the technical architecture to a web services based infrastructure over time. Changes to the existing application and systems architecture will only be made to meet critical business requirements such as changing the security model to accommodate new user types or modifying an existing interface.

The incremental and discrete migration phases will be based upon the time, cost, and risks associated with the architectural change opportunities. The phases will be prioritized by

evaluating the county pain points, mandated or desired functional enhancements, time to benefits delivery, and the strategic technical capabilities to meet specific business requirements.

The remaining unfulfilled SACWIS technical functionality will be designed, developed, and implemented using the SOA and accessed through the browser-based user interface as a part of the evolution and migration to the target architecture. This alternative is defined by the following assumptions:

- The State would continue to maintain and upgrade the existing CWS/CMS – changes to the existing application and systems architecture to meet critical business requirements – while evolving the technical architecture to a web services based infrastructure over time.
- Existing functionality will be converted and deployed to a web services based SOA/browser-based environment over an 8-year period; the mainframe will be decommissioned at the same time.
- While there would be no need for distributing CWS/CMS code to the field in a browser-based architecture, the State would still be required to maintain desktops and servers in dedicated counties.
- The State would manage and integrate current and target systems and/or vendors over an extended period.
- This alternative further assumes that hosting services and data center operations transfer from the IBM Global Service site in Boulder, Colorado to the State Data Center.

Alternative 2 Cost Assumptions

The following are the key assumptions that helped to define the costs for Alternative 2:

- For the purposes of this analysis, the TAAA Team assumed that there are no current one-time development costs and did not include costs for potential future development efforts outside of this alternative.
- Current ongoing M&O costs will continue and increase at a growth of 1% per year until the implementation of the new solution is completed.
- The re-development of existing functionality on the new architecture will occur over an eight year period.
- All new costs will be added to existing costs until the implementation of each portion of the new solution.
- SACWIS functionality is related solely to automated system features that support county processes and does not imply funding.
- Per the timeframe identified in the EAS PIER, Adoptions functionality will be developed and deployed between July 2007 and June 2009.
- The effort to develop new SACWIS functionality includes the cost and effort of developing Eligibility functionality/interfaces, Financial Management functionality/interfaces, and

Interfaces to Title IV-A (CalWORKs), Title IV-D (Child Support Enforcement), and Title XIX (Medi-Cal).

- Eligibility functionality/interfaces will be implemented between July 2008 and June 2010, Financial Management functionality/interfaces between July 2009 and June 2010, and Interfaces between July 2009 and June 2010.
- The 300 additional function points per year will be developed beginning July 2010.
- One (1) State manager will be assigned to manage the contracted staff providing development services on behalf of the HHSDC State staff.
- CDSS staff will provide policy direction and guidance during development.
- Three (3) staff will support the Adoptions, SACWIS, and Data Warehouse development efforts. Two (2) of these staff will transition to the M&O organization as part of continuing support for the Adoptions and SACWIS functionality.
- Additional facilities costs will be added to each effort (re-development of existing functionality, adoptions functionality, SACWIS functionality, remote access infrastructure, and data warehouse). All other facilities costs have been included in the projected vendor rates.
- The new architecture will result in the reduction of State Data Center hosting service costs by approximately 20%. The transition to the new level of costs will occur gradually over the eight-year time period.
- State Data Center hosting service costs will not be affected by the addition of Adoptions and SACWIS functionality will not result in the need for addition hardware or equipment to be hosted.
- State Data Center WAN costs will increase as a result of increasing the number of sites by 5% each year.
- County participation will include project, conversion (data validation and manual conversion), and implementation staff during the development period for Adoptions and SACWIS functionality.
- Vendor costs for the re-development of existing functionality and all SACWIS functionality (Adoptions, IV-E Eligibility, Financial Management, and Interfaces) were based on the number of function points and average standard cost per function point.
- Hardware and software will be purchased to support the development and maintenance efforts, including workstations/laptops, servers, and development and productivity software.
- Production hardware or software will be required to support the SOA infrastructure.
- Remote access infrastructure and data warehouse hardware will be housed at the State Data Center.
- All host hardware and software will be hosted at the State Data Center.

- Current contracted goods and services will continue and additional QA, IV&V, integration services, and training contractors will be added to the development of each new function. Although the costs of existing contracts has been continued over the ten-year period to provide a level of contractor coverage, no additional QA or IV&V services will be required for the maintenance of any new function.

Alternative 2 Ten-Year Cost

The following table illustrates the current costs projected over ten years and the total ten-year costs for this alternative.

Table 10 - Projected Current and Total Ten Year Costs for Alternative 2

COST CATEGORY	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	SFY 2015/16
Current CWS/CMS Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.43	\$ 129.50	\$ 130.59	\$ 131.68
One-Time Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
On-Going Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.43	\$ 129.50	\$ 130.59	\$ 131.68
Costs	\$ 154.61	\$ 165.55	\$ 148.29	\$ 135.80	\$ 131.12	\$ 128.11	\$ 120.80	\$ 114.16	\$ 107.44
One-Time Costs	\$ 30.64	\$ 36.41	\$ 26.96	\$ 17.32	\$ 16.61	\$ 16.55	\$ 16.48	\$ 11.83	\$ 11.77
Costs to Evolve Existing to New Arch and Re-Dev Functionality on New Arch	\$ 16.83	\$ 15.10	\$ 13.61	\$ 13.55	\$ 13.47	\$ 13.40	\$ 13.34	\$ 8.69	\$ 8.63
Additional Costs to Develop Adoptions Functionality on New Architecture	\$ 4.33	\$ 15.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Costs to Develop SACWIS Functionality on New Architecture	\$ 0.13	\$ 4.81	\$ 12.35	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Costs to Develop New Business Functionality on New Architecture	\$ -	\$ -	\$ -	\$ 3.10	\$ 2.49	\$ 2.49	\$ 2.49	\$ 2.48	\$ 2.48
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ 3.10	\$ 2.49	\$ 2.49	\$ 2.49	\$ 2.48	\$ 2.48
- Mobility/Remote Access	\$ 2.31	\$ 0.34	\$ 0.34	\$ 0.02	\$ -	\$ -	\$ -	\$ -	\$ -
- Data Warehousing	\$ 7.05	\$ 0.66	\$ 0.66	\$ 0.66	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65
On-Going Costs	\$ 123.96	\$ 129.14	\$ 121.34	\$ 118.48	\$ 114.51	\$ 111.56	\$ 104.32	\$ 102.33	\$ 95.67
Current On-Going Costs	\$ 123.78	\$ 124.48	\$ 96.08	\$ 74.39	\$ 60.37	\$ 46.17	\$ 31.20	\$ 18.94	\$ 18.94
New On-Going Costs to Maintain New Architecture and Re-Dev Functionality	\$ -	\$ 0.42	\$ 19.23	\$ 35.77	\$ 45.22	\$ 54.81	\$ 62.95	\$ 72.82	\$ 82.74
Additional On-Going Costs for Adoptions Functionality on New Architecture	\$ -	\$ 0.00	\$ 1.41	\$ 1.46	\$ 1.46	\$ 1.51	\$ 1.52	\$ 1.55	\$ 1.55
Additional On-Going Costs for New SACWIS Functionality on New Architecture	\$ -	\$ -	\$ -	\$ 1.23	\$ 1.17	\$ 1.17	\$ 1.16	\$ 1.20	\$ 1.20
Additional Costs to Maintain New Business Functionality on New Architecture	\$ -	\$ -	\$ -	\$ -	\$ 0.44	\$ 0.51	\$ 0.62	\$ 0.67	\$ 0.67
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ 0.44	\$ 0.51	\$ 0.62	\$ 0.67	\$ 0.67
- Mobility/Remote Access	\$ -	\$ 1.13	\$ 1.48	\$ 2.23	\$ 2.18	\$ 2.24	\$ 2.60	\$ 2.55	\$ 2.55
- Data Warehousing	\$ 0.19	\$ 3.11	\$ 3.13	\$ 3.40	\$ 3.68	\$ 5.15	\$ 4.28	\$ 4.60	\$ 4.60

(Note: Costs shown in millions of dollars)

Alternative 2 Benefit Assumptions

The following are the key assumptions for all benefits in Alternative 2:

- All benefits will begin 12 months after the functionality has been implemented. The only exception is System Savings, which includes the replacement of current systems. This benefit will be realized at the time the new system is implemented.
- All benefits drivers and variables were obtained from documented sources to ensure validity of benefits.
- The savings identified will be reinvested back into the CWS/CMS program to reduce the workload of the current social workers who are currently working overtime as documented in the SB 2030 report.

Alternative 2 Quantitative Benefits

The quantitative savings/benefits that Alternative 2 will be able to take advantage of are:

- **Increased Productivity** – Alternative 2 will be able to take advantage of benefits associated with:
 - **Reduced Wait Time** – With the implementation of a new technical architecture, there will be an overall reduction in the amount of time the social worker must wait for the CWS/CMS to display or process information. As documented in the SB 2030 Report , the average case worker spends 15.5 hours a week on CWS/CMS. Of this time, 11.6% is spent waiting for the system to display information. These figures characterize a worst-case scenario and were based on a point-in-time assessment. While improvements have been made in this area, the fat client technology is still in use. Any performance improvements recognized with the new system will increase overall productivity and allow the social worker more time in performing work with the children instead of working with CWS/CMS. The new technical architecture and thin client should create a drop of 50% in the average time a social worker must wait for the system. If 8,463 workers no longer spend their time waiting for the system, this will result in an overall savings of \$6,108,837 annually.
 - **Mobility** – Technology to support PDA's for the social worker in the field increases productivity. If the social worker performs an additional 25 minutes per week of work as a result of having mobile technology and 50% of the work force utilizes this technology, \$3,723,720 will be recognized in savings annually. It is anticipated that in the first year of benefit realization only 30% of the work force will use this technology and receive benefits of \$2,234,280. In the second year, 40% is anticipated to take up the use of this technology, increasing savings to \$2,979,040. In the third year, 50% of the work force will use the technology and full benefit realization (\$3,723,720) will occur from that point forward.
 - **Improve Overall Productivity through a New Interface Design** – Elimination of redundant data entry produces additional time savings. The time savings of the new interface design is estimated at 2% for the entire caseload. This savings calculates to \$515,145 annually.

- **Program Savings** – The following program savings are anticipated to occur as a result of implementing Alternative 2:
 - ***Automate Adoptions Case Management Tasks*** – The manual processes of managing adoption cases can be decreased through automation. The average worker spends time each day performing a variety of manual tasks that can be eliminated or improved. With implementation of a full case management system, data will be available to facilitate the overall adoption case management process. Adoption homes will be identified faster. Information will be readily available for the social worker to answer questions and facilitate adoptions. The average worker saves time if the information is readily available and organized to assist the social worker in the overall facilitation of the adoption process. A conservative estimate of a 5% overall time savings is estimated for each case, with an annual caseload of 7004 resulting in a savings of \$742,191 annually.
 - ***Automated Interfaces*** – The process of acquiring, compiling, and delivering (i.e., faxing, hand carrying, telephoning, etc.) information can be a time consuming process for the social worker especially where there are multiple organizations requiring similar information. The social worker spends time each day performing tasks that can be eliminated through a two-way interface.
 - ❖ Title IV-A: CalWORKs Program – The CalWORKs program is California's largest cash assistance program for children and families with an annual caseload of 730,000 . The social worker searches SAWS when initial abuse allegations are received, and through the life of a case for integrated case management. This task is estimated at 5 minutes per case. Elimination of this task through automation will result in a total savings of \$2,569,600 annually.
 - ❖ Title IV-D: Child Support – The child support program establishes and enforces court orders for child, spousal, and medical support from absent parents. The social worker searches for parental information to help make placement decisions. This task is estimated at 5 minutes per case with an annual caseload of 74,283 . If this information is automatically searched and provided to the social worker, a total annual savings of \$309,760 will result.
 - ❖ Title XIX: Medi-Cal Program – Medi-Cal, California's Medicaid program, is a key component of California's health care delivery system. The social worker searches for information on each child to determine whether the child is already receiving Medi-Cal. This task is estimated at 5 minutes per case with an annual caseload of 74,283 . Elimination of this task through automation will result in a total annual savings of \$309,760.
 - ***Automated Title IV-E Eligibility Determination*** – The automation of the eligibility information-sharing process will eliminate or improve several tasks, which will result in savings.
 - ❖ Eliminate the Manual Process of Delivering Information to Eligibility – The manual process of delivering (i.e., faxing, hand carrying, telephoning, etc.) information to the eligibility department can be decreased through automation. The average social worker spends 10 minutes delivering eligibility information per week. The number of FTEs minus Los Angeles (removed Los Angeles from the equation because Los

Angeles already has a one-way interface for eligibility) is 5,853 . The elimination of the manual data-sharing task through automation will result in a total savings of \$2,317,788 annually.

- ❖ Automate the Data Entry Process of Eligibility Data – Once the eligibility division performs the calculations, the information is returned to the social worker who then has to manually enter the results. Through a two-way interface with the eligibility department, this task can be eliminated. The average worker spends 5 minutes per case performing data entry and the annual caseload of foster care children minus Los Angeles (removed Los Angeles from the equation because Los Angeles already has a one-way interface for eligibility) is 45,313. The eligibility process occurs once every six (6) months . Automatically importing the eligibility results will realize a reduction of 50% in the time the social worker must work with the case. The time savings recognized through the automation of this task will result in a total savings of \$159,502 annually.
- **System Savings** – As the current system is decommissioned, the State will be able to realize the costs of that system as an annual savings. For Alternative 2, the current system will be decommissioned over a period of eight years.

The total benefits for the ten-year period are shown in the following table.

Table 20 - Total Ten Year Benefits for Alternative 2

COST CATEGORY	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	SFY 2015/16
Benefits	\$ -	\$ -	\$ 33.42	\$ 50.42	\$ 71.31	\$ 94.14	\$ 104.55	\$ 121.61	\$ 138.62
Current Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Current System Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increased Productivity	\$ -	\$ -	\$ 2.23	\$ 3.02	\$ 5.82	\$ 5.85	\$ 5.88	\$ 5.89	\$ 5.90
Benefits from Development of New Architecture and Re-Development of Existing F	\$ -	\$ -	\$ -	\$ 0.04	\$ 0.06	\$ 0.09	\$ 0.12	\$ 0.13	\$ 0.13
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ 2.04	\$ 2.04	\$ 2.04	\$ 2.04	\$ 2.04
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ 2.23	\$ 2.98	\$ 3.72	\$ 3.72	\$ 3.72	\$ 3.72	\$ 3.72
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Program Savings	\$ -	\$ -	\$ -	\$ 0.25	\$ 2.10	\$ 2.10	\$ 2.10	\$ 2.10	\$ 2.10
Benefits from Development of New Architecture and Re-Development of Existing F	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ 1.86	\$ 1.86	\$ 1.86	\$ 1.86	\$ 1.86
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
System Savings	\$ -	\$ -	\$ 31.18	\$ 47.15	\$ 63.38	\$ 86.19	\$ 96.57	\$ 113.62	\$ 121.61
Benefits from Development of New Architecture and Re-Development of Existing F	\$ -	\$ -	\$ 31.18	\$ 47.15	\$ 63.38	\$ 86.19	\$ 96.57	\$ 113.62	\$ 121.61
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

(Note: Benefits shown in millions of dollars)

Alternative 2 Breakeven

While Alternative 2 incurs costs and generates savings on a graduated basis, the cumulative benefits are not able to out pace the cumulative costs during the ten-year period.

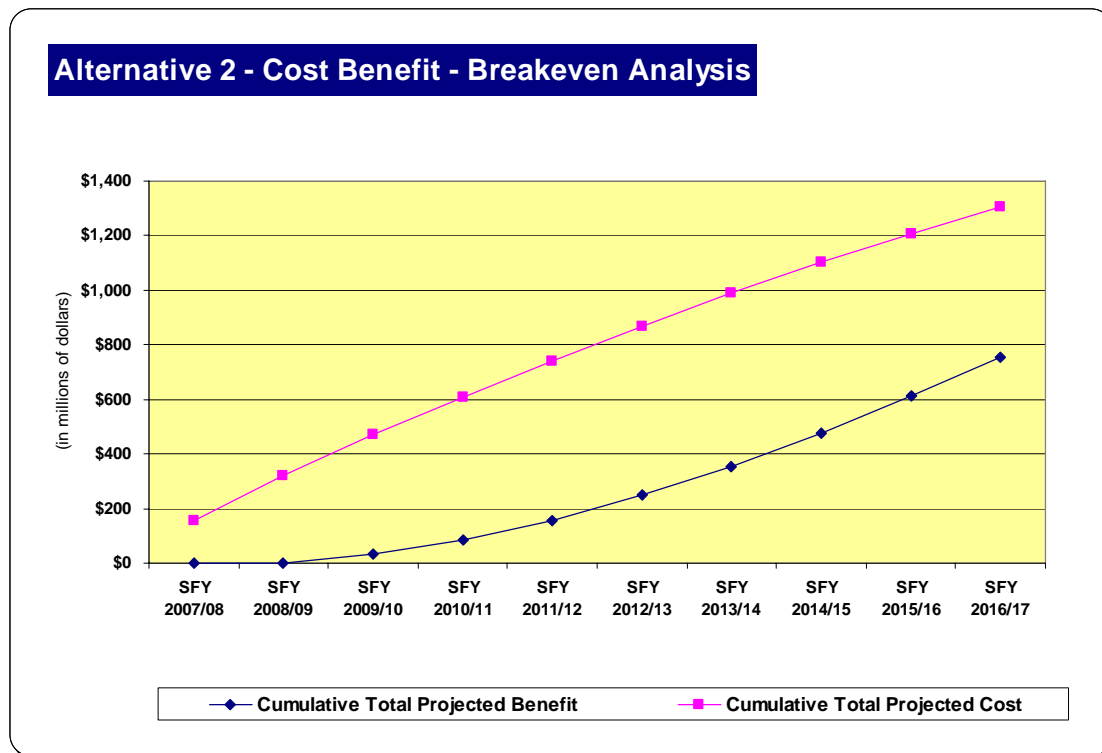


Figure 2 - Alternative 2 - Cost Benefit - Breakeven Analysis

A.5 ALTERNATIVE 3

In Alternative 3, a new application for CWS/CMS will be developed utilizing a web-services based SOA, optionally including the required SACWIS technical functionality. This alternative proposes that the State procure vendor services to build a new compliant “California SACWIS” using a web services based application architecture accessing the SOA services. The existing CWS/CMS will continue to be maintained as required to meet critical business, legislative, and regulatory needs during this parallel development effort. However, no major technical application architecture changes will be made to the legacy system.

The following assumptions were made for Alternative 3:

- The State will continue to maintain and upgrade the existing CWS/CMS as required to meet critical business, legislative, and regulatory needs while building in parallel a new “California SACWIS”.
- The development of new functionality will use a standard development lifecycle. For existing functionality:

- Conversion of existing functionality will occur in a one-time development effort.
- Requirements gathering will be minimal, except for security and access controls design.
- Normal requirements gathering will occur for new SACWIS functionality.
- Initial rollout of the application will leverage current user interface layout and design as much as possible.
- Improvements to address defined priority deficiencies will be incorporated based on priority of need.
- While there would be no need for distributing CWS/CMS code to the field in a browser-based architecture, the State would still be required to maintain desktops and servers in dedicated counties.
- This alternative further assumes that hosting services and data center operations transfer from the IBM Global Service site in Boulder, Colorado to the State Data Center.

Alternative 3 Cost Assumptions

The following are the key assumptions that helped to define the costs for Alternative 3:

- For the purposes of this analysis, the TAAA Team assumed that there are no current one-time development costs and did not include costs for potential future development efforts outside of this alternative.
- Current ongoing M&O costs will continue and increase at a growth of 1% per year until the implementation of the new solution is completed.
- The re-development of existing functionality on the new architecture will occur over a three-year period.
- SACWIS functionality is related solely to automated system features that support county processes and does not imply funding.
- Per the timeframe identified in the EAS PIER, Adoptions functionality will be developed and deployed between July 2008 and June 2010.
- The effort to develop New SACWIS Functionality includes the cost and effort of developing Eligibility functionality/interfaces, Financial Management functionality/interfaces, and Interfaces to Title IV-A (CalWORKs), Title IV-D (Child Support Enforcement), and Title XIX (Medi-Cal).
- Eligibility functionality/interfaces will be implemented between July 2008 and June 2010, Financial Management functionality/interfaces between July 2009 and June 2010, and Interfaces to Title IV-A, Title IV-D and Title XIX between July 2009 and June 2010.
- The 300 additional function points per year will be developed beginning July 2010.

- One (1) State manager will be assigned to manage the contracted staff providing development services on behalf of the HHSDC State staff.
- CDSS staff will provide policy direction and guidance during development.
- Three (3) staff will support the Adoptions, SACWIS, and Data Warehouse development efforts. Two (2) of these staff will transition to the M&O organization as part of continuing support for the Adoptions and SACWIS functionality.
- Additional facilities costs will be added to each effort (re-development of existing functionality, adoptions functionality, SACWIS functionality, remote access infrastructure, and data warehouse). All other facilities costs have been included in the projected vendor rates.
- The new architecture will result in the reduction of State Data Center hosting service costs by approximately 20%. The transition to the new level of costs will occur immediately at the end of the three-year development period.
- State Data Center hosting service costs will not be affected by the addition of Adoptions and SACWIS functionality will not result in the need for additional hardware or equipment to be hosted.
- State Data Center WAN costs will increase as a result of increasing the number of sites by 5% each year.
- County participation will include project, conversion (data validation and manual conversion), and implementation staff during the development period for Adoptions and SACWIS functionality.
- Vendor costs for the re-development of existing functionality and all SACWIS functionality (Adoptions, IV-E Eligibility, Financial Management, and Interfaces) were based on the number of function points and average standard cost per function point.
- Hardware and software will be purchased to support the development and maintenance efforts, including workstations/laptops, servers, and development and productivity software.
- Production hardware or software will be required to support the SOA infrastructure.
- Remote access infrastructure and data warehouse hardware will be housed at the State Data Center.
- All host hardware and software will be hosted at the State Data Center.
- Current contracted goods and services will continue and additional QA, IV&V, integration services, and training contractors will be added to the development of each new function. Although the cost of existing contracts has been continued over the ten-year period to provide a level of contractor coverage, no additional QA or IV&V services will be required for the maintenance of any new function.

Alternative 3 Ten-Year Cost

The following table illustrates the current costs projected over ten years and the total ten-year costs for this alternative.

Table 2: Projected Current and Total Ten Year Costs for Alternative C

COST CATEGORY	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	SFY 2014/15	2
Current CWS/CMS Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.43	\$ 129.50	\$ 130.59	\$	
One-Time Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	
On-Going Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 126.46	\$ 127.50	\$ 128.43	\$ 129.50	\$ 130.59	\$	
Costs	\$ 151.07	\$ 150.59	\$ 196.64	\$ 92.34	\$ 92.90	\$ 95.23	\$ 95.62	\$ 96.86	\$	
One-Time Costs	\$ 26.83	\$ 21.38	\$ 66.00	\$ 3.72	\$ 3.09	\$ 3.09	\$ 3.09	\$ 3.08	\$	
Development of New Architecture and Re-Development of Existing Functionality	\$ 17.33	\$ 12.38	\$ 37.47	\$ -	\$ -	\$ -	\$ -	\$ -	\$	
Additional Costs to Develop Adoptions Functionality on New Architecture	\$ -	\$ 4.64	\$ 15.70	\$ -	\$ -	\$ -	\$ -	\$ -	\$	
Additional Costs to Develop SACWIS Functionality on New Arch	\$ -	\$ 3.25	\$ 11.88	\$ -	\$ -	\$ -	\$ -	\$ -	\$	
Additional Costs to Develop New Business Functionality on New Architecture										
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ 3.11	\$ 2.49	\$ 2.49	\$ 2.49	\$ 2.48	\$	
- Mobility/Remote Access	\$ 2.30	\$ 0.34	\$ 0.34	\$ 0.02	\$ -	\$ -	\$ -	\$ -	\$	
- Data Warehousing	\$ 7.20	\$ 0.78	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$	
On-Going Costs	\$ 124.23	\$ 129.21	\$ 130.63	\$ 88.61	\$ 89.81	\$ 92.14	\$ 92.53	\$ 93.77	\$	
Current On-Going Costs	\$ 123.78	\$ 124.48	\$ 125.46	\$ 1.00	\$ 1.28	\$ 1.56	\$ 1.86	\$ 2.17	\$	
New On-Going Costs to Maintain New Architecture and Re-Dev Functionality	\$ 0.27	\$ 0.60	\$ 0.87	\$ 80.60	\$ 81.02	\$ 81.63	\$ 82.39	\$ 82.99	\$	
Additional On-Going Costs for Adoptions Functionality on New Architecture	\$ -	\$ -	\$ -	\$ 1.59	\$ 1.60	\$ 1.56	\$ 1.59	\$ 1.56	\$	
Additional On-Going Costs for New SACWIS Functionality on New Arch	\$ -	\$ -	\$ -	\$ 1.29	\$ 1.23	\$ 1.19	\$ 1.18	\$ 1.22	\$	
Additional Costs to Maintain New Business Functionality on New Architecture										
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ 0.46	\$ 0.53	\$ 0.63	\$ 0.66	\$	
- Mobility/Remote Access	\$ -	\$ 1.19	\$ 1.41	\$ 0.86	\$ 0.69	\$ 0.68	\$ 0.78	\$ 0.76	\$	
- Data Warehousing	\$ 0.19	\$ 2.94	\$ 2.89	\$ 3.27	\$ 3.53	\$ 4.99	\$ 4.10	\$ 4.40	\$	

(Note: Costs shown in millions of dollars)

Alternative 3 Benefit Assumptions

The following are the key assumptions for all benefits in Alternative 3:

- All benefits will begin 12 months after the functionality has been implemented. The only exception is System Savings, which includes the replacement of current systems. This benefit will be realized at the time the new system is implemented.
- All benefits drivers and variables were obtained from documented sources to ensure validity of benefits.
- The savings identified will be reinvested back into the CWS/CMS program to reduce the workload of the current social workers who are currently working overtime as documented in the SB 2030 report.

Alternative 3 Quantitative Benefits

The quantitative savings/benefits that Alternative 3 will be able to take advantage of are:

- **Increased Productivity** – Alternative 3 will be able to take advantage of benefits associated with:
 - **Reduced Wait Time** – With the implementation of a new technical architecture, there will be an overall reduction in the amount of time the social worker must wait for the CWS/CMS to display or process information. As documented in the SB 2030 Report , the average case worker spends 15.5 hours a week on CWS/CMS. Of this time, 11.6% is spent waiting for the system to display information. These figures characterize a worst-case scenario and were based on a point-in-time assessment. While improvements have been made in this area, the fat client technology is still in use. Any performance improvements recognized with the new system will increase overall productivity and allow the social worker more time in performing work with the children instead of working with CWS/CMS. The new technical architecture and thin client should create a drop of 50% in the average time a social worker must wait for the system. If 8,463 workers no longer spend their time waiting for the system, this will result in an overall savings of \$6,108,837 annually.
 - **Mobility** – Technology to support PDAs for the social worker in the field increases productivity. If the social worker performs an additional 25 minutes per week of work as a result of having mobile technology and 50% of the work force utilizes this technology, \$3,723,720 will be recognized in savings annually. It is anticipated that in the first year of benefit realization only 30% of the work force will use this technology and receive benefits of \$2,234,280. In the second year, 40% is anticipated to take up the use of this technology, increasing savings to \$2,979,040. In the third year, 50% of the work force will use the technology and full benefit realization (\$3,723,720) will occur from that point forward.
 - **Improve Overall Productivity through a New Interface Design** – Elimination of redundant data entry produces additional time savings. The time savings of the new interface design is estimated at 2% for the entire caseload. This savings calculates to \$515,145 annually.

- **Program Savings** – The following program savings are anticipated to occur as a result of implementing Alternative 3:
 - ***Automate Adoptions Case Management Tasks*** – The manual processes of managing adoption cases can be decreased through automation. The average worker spends time each day performing a variety of manual tasks that can be eliminated or improved. With implementation of a full case management system, data will be available to facilitate the overall adoption case management process. Adoption homes will be identified faster. Information will be readily available for the social worker to answer questions and facilitate adoptions. The average worker saves time if the information is readily available and organized to assist the social worker in the overall facilitation of the adoption process. A conservative estimate of a 5% overall time savings is estimated for each case, with an annual caseload of 7004 resulting in a savings of \$742,191 annually.
 - ***Automated Interfaces*** – The process of acquiring, compiling, and delivering (i.e., faxing, hand carrying, telephoning, etc.) information can be a time consuming process for the social worker especially where there are multiple organizations requiring similar information. The social worker spends time each day performing tasks that can be eliminated through a two-way interface.
 - ❖ Title IV-A: CalWORKs Program – The CalWORKs program is California's largest cash assistance program for children and families with an annual caseload of 730,000 . The social worker searches SAWS when initial abuse allegations are received, and through the life of a case for integrated case management. This task is estimated at 5 minutes per case. Elimination of this task through automation will result in a total savings of \$2,569,600 annually.
 - ❖ Title IV-D: Child Support – The child support program establishes and enforces court orders for child, spousal, and medical support from absent parents. The social worker searches for parental information to help make placement decisions. This task is estimated at 5 minutes per case with an annual caseload of 74,283 . If this information is automatically searched and provided to the social worker, a total annual savings of \$309,760 will result.
 - ❖ Title XIX: Medi-Cal Program – Medi-Cal, California's Medicaid program, is a key component of California's health care delivery system. The social worker searches for information on each child to determine whether the child is already receiving Medi-Cal. This task is estimated at 5 minutes per case with an annual caseload of 74,283 . Elimination of this task through automation will result in a total annual savings of \$309,760.
 - ***Automated Title IV-E Eligibility Determination*** – The automation of the eligibility information-sharing process will eliminate or improve several tasks, which will result in savings.
 - ❖ Eliminate the Manual Process of Delivering Information to Eligibility – The manual process of delivering (i.e., faxing, hand carrying, telephoning, etc.) information to the eligibility department can be decreased through automation. The average social worker spends 10 minutes delivering eligibility information per week. The number of FTEs minus Los Angeles (removed Los Angeles from the equation because Los

Angeles already has a one-way interface for eligibility) is 5,853 . The elimination of the manual data-sharing task through automation will result in a total savings of \$2,317,788 annually.

- ❖ Automate the Data Entry Process of Eligibility Data – Once the eligibility division performs the calculations, the information is returned to the social worker who then has to manually enter the results. Through a two-way interface with the eligibility department, this task can be eliminated. The average worker spends 5 minutes per case performing data entry and the annual caseload of foster care children minus Los Angeles (removed Los Angeles from the equation because Los Angeles already has a one-way interface for eligibility) is 45,313. The eligibility process occurs once every six (6) months . Automatically importing the eligibility results will realize a reduction of 50% in the time the social worker must work with the case. The time savings recognized through the automation of this task will result in a total savings of \$159,502 annually.
- **System Savings** – At the time the current system is decommissioned, the State will be able to realize the costs of that system as an annual savings. For Alternative 3, the current system will be decommissioned at the end of Year 3.

The total benefits for the ten-year period are shown in the following table.

Table 12 - Total Ten Year Benefits for Alternatives

COST CATEGORY	SFY 2007/08	SFY 2008/09	SFY 2009/10	SFY 2010/11	SFY 2011/12	SFY 2012/13	SFY 2013/14	SFY 2014/15	
Benefits	\$ -	\$ -	\$ 2.23	\$ 127.70	\$ 133.76	\$ 134.79	\$ 135.73	\$ 136.80	\$
Current Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Current System Savings	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Increased Productivity	\$ -	\$ -	\$ 2.23	\$ 2.98	\$ 5.93	\$ 5.93	\$ 5.93	\$ 5.93	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ -	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ 2.04	\$ 2.04	\$ 2.04	\$ 2.04	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ 2.23	\$ 2.98	\$ 3.72	\$ 3.72	\$ 3.72	\$ 3.72	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Program Savings	\$ -	\$ -	\$ -	\$ -	\$ 2.10	\$ 2.10	\$ 2.10	\$ 2.10	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ 1.86	\$ 1.86	\$ 1.86	\$ 1.86	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
System Savings	\$ -	\$ -	\$ -	\$ 124.73	\$ 125.72	\$ 126.76	\$ 127.69	\$ 128.76	\$
Benefits from Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ -	\$ -	\$ 124.73	\$ 125.72	\$ 126.76	\$ 127.69	\$ 128.76	\$
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing SACWIS Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
Additional Benefits from Implementing New Business Functionality									
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Mobility/Remote Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$
- Data Warehousing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$

(Note: Benefits shown in millions of dollars)

Alternative 3 Breakeven

Although Alternative 3 does not reach a point of return on investment during the ten-year period, it does breakeven in June 2022.

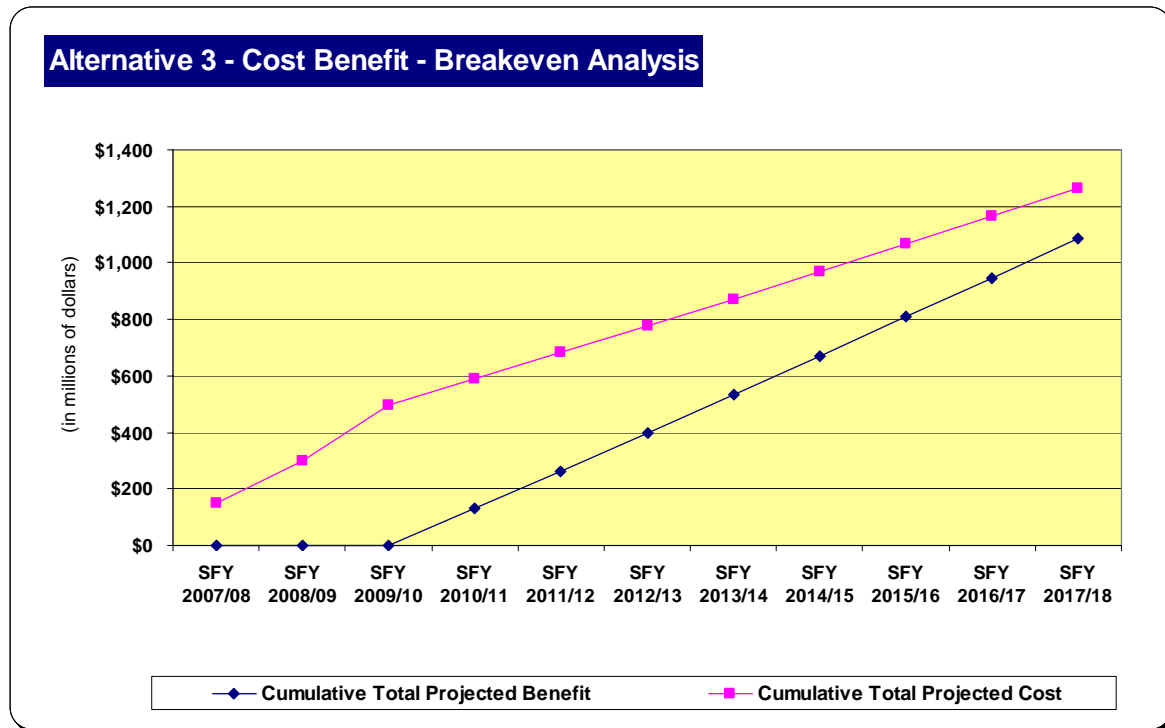


Figure 3 - Alternative 3 - Cost Benefit - Breakeven Analysis

A.6 COST/BENEFIT ANALYSIS

The following table illustrates the total ten-year costs and benefits for each alternative.

Table 23 - Total Ten-Year Costs and Benefits for Each Alternative

(all costs shown in millions of dollars)	Alt 1	Alt 2	Alt 3
One-Time Costs	\$ 119.69	\$ 179.06	\$ 136.46
Development of New Architecture and Re-Development of Existing Functionality	\$ -	\$ 107.99	\$ 67.18
Additional Costs to Develop Adoptions Functionality	\$ 39.27	\$ 19.82	\$ 20.34
Additional Costs to Develop SACWIS Functionality (FM, IV-E Eligibility, Interfaces)	\$ 19.00	\$ 17.29	\$ 15.13
Additional Costs to Develop New Business Functionality			
- Additional Functionality (300 Function Points Per Year)	\$ 42.97	\$ 18.01	\$ 18.04
- Mobility/Remote Access	\$ 3.07	\$ 3.00	\$ 3.00
- Data Warehousing	\$ 15.38	\$ 12.95	\$ 12.78
On-Going Costs (Total for Ten-Year Period)	\$ 1,367.31	\$ 1,119.79	\$ 1,032.76
Current On-Going Costs	\$ 1,281.32	\$ 580.78	\$ 386.96
New On-Going Costs to Maintain New Architecture and Re-Developed Functionality	\$ -	\$ 460.86	\$ 578.31
Additional On-Going Costs for Adoptions Functionality on New Architecture	\$ 13.50	\$ 12.12	\$ 11.06
Additional On-Going Costs for New SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ 9.66	\$ 8.31	\$ 8.46
Additional Costs to Maintain New Business Functionality			
- Additional Functionality (300 Function Points Per Year)	\$ 7.51	\$ 3.80	\$ 3.80
- Mobility/Remote Access	\$ 17.46	\$ 16.16	\$ 8.04
- Data Warehousing	\$ 37.86	\$ 37.77	\$ 36.12
Total Benefits Realized Over Ten-Year Period	\$ 854.41	\$ 754.62	\$ 947.96
Current Savings	\$ 795.99	\$ -	\$ -
Current System Savings	\$ 795.99	\$ -	\$ -
Increased Productivity	\$ 27.61	\$ 40.59	\$ 40.86
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ 0.76	\$ 1.03
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ -	\$ 12.22	\$ 12.22
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ 27.61	\$ 27.61	\$ 27.61
- Data Warehousing	\$ -	\$ -	\$ -
Program Savings	\$ 30.82	\$ 12.87	\$ 12.62
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ -	\$ -
Additional Benefits from Implementing Adoptions Functionality	\$ 2.97	\$ 1.73	\$ 1.48
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ 27.85	\$ 11.14	\$ 11.14
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -
System Savings	\$ -	\$ 701.16	\$ 894.48
Benefits from Development of New Architecture and Re-Development of Existing Fun	\$ -	\$ 701.16	\$ 894.48
Additional Benefits from Implementing Adoptions Functionality	\$ -	\$ -	\$ -
Additional Benefits from Implementing SACWIS Func (FM, IV-E Eligibility, Interfaces)	\$ -	\$ -	\$ -
Additional Benefits from Implementing New Business Functionality	\$ -	\$ -	\$ -
- Additional Functionality (300 Function Points Per Year)	\$ -	\$ -	\$ -
- Mobility/Remote Access	\$ -	\$ -	\$ -
- Data Warehousing	\$ -	\$ -	\$ -
Cummulative Net Cost/Benefits for Ten-Year Period	\$ (632.59)	\$ (544.23)	\$ (221.26)

**Costs and benefits shown in millions of dollars*

Both short- and long-term views of the financial impacts associated with each alternative are shown above. Short-term impacts are represented by the one-time costs, which for the analysis included system development costs. The combination of maintenance and operations costs and savings/benefits combine to represent the long-term impacts. The overall effect of both short- and long-term impacts factor into the cumulative net, which provides a measure of the overall financial attractiveness of each alternative over time.

- **Short-Term Financial Impacts** – When viewed in the short-term, Alternative 1 was the lowest cost alternative. Because Alternative 1 was based on expanding and enhancing the current operating system, only costs associated with the new components affected the overall total; hence, the least amount of additional investment was required. However, it is important to note that while the total costs for Alternative 1 was less than the other alternatives, the cost to develop the additional SACWIS functionality (i.e., Adoptions, Financial Management, IV-E Eligibility, and Interfaces) was found to be 50% more expensive in Alternative 1 than in either Alternative 2 or 3. Similar differentiating cost factors were also associated with the cost for the ongoing addition of business functionality at the rate of 300 function points per year. The cost to implement the additional business functionality was found to be 42% higher than in Alternative 2 or 3. The cost to add mobility/remote access and data warehousing to any of the architectures analyzed is neutral in that no factors influence a higher or lower cost for any alternative.
- **Long-Term Financial Impacts** – When the long-term perspective was taken, Alternative 3 resulted in the greatest overall financial return. In fact, Alternative 3 outpaced the return (cumulative net) of the next most attractive option (Alternative 1) by approximately \$323 million over the ten-year period. This substantially greater return was primarily a result of the quicker realization of benefits. The additional difference in the overall financial return associated with Alternative 3 (in comparison to Alternative 1) is because of lower maintenance and operations costs that would result from efficiencies of moving to an architecture that is more efficient to maintain and operate. It is one perspective to look at the total ongoing costs for the entire ten-year period. Another perspective is to look at the annual ongoing costs in Year 5 and again at Year 10 after all three alternatives have fully stabilized. The chart below illustrates the ongoing costs at Years 5 and 10 for each alternative.

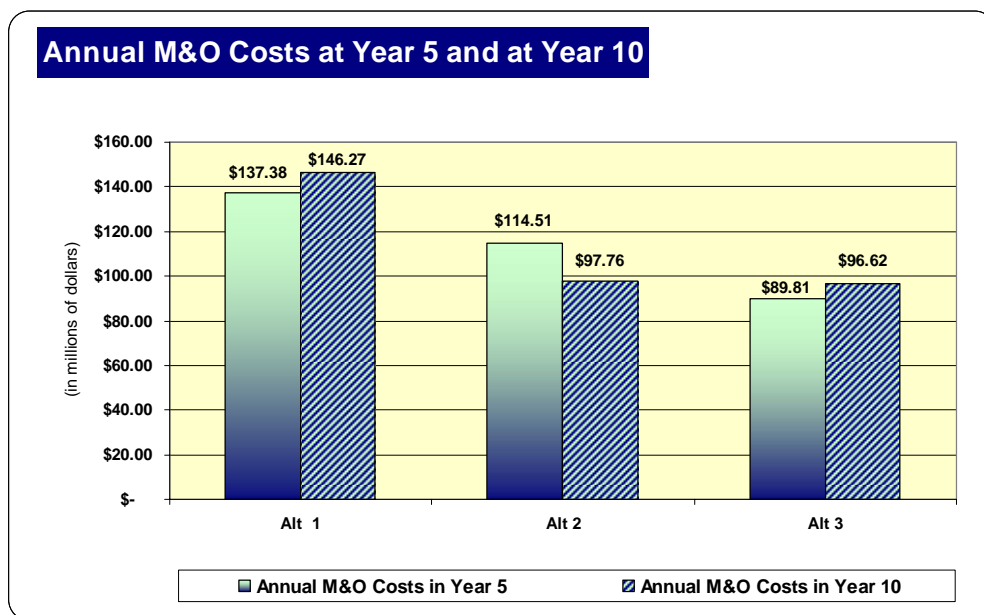


Figure 4 – Annual M&O Costs at Year 5 and at Year 10

The cumulative benefits obtained over the ten-year period were charted against the cumulative total ten-year costs (one-time and ongoing) for each alternative. The net result of comparing

cumulative costs with cumulative benefits should be at some point in time, the benefits will out pace the costs, and thus reach a breakeven point for the overall investment. In the analysis conducted, none of the alternatives reached a breakeven point before the end of the ten-year period. However, because the cost/benefit curve for Alternative 3 appeared to be closing, the TAAA Team extrapolated costs beyond the ten-year period to determine when breakeven would occur for this alternative. The TAAA Team determined that Alternative 3 will reach a return on investment in April 2022. Alternative 1 and 2 never reach a breakeven point.

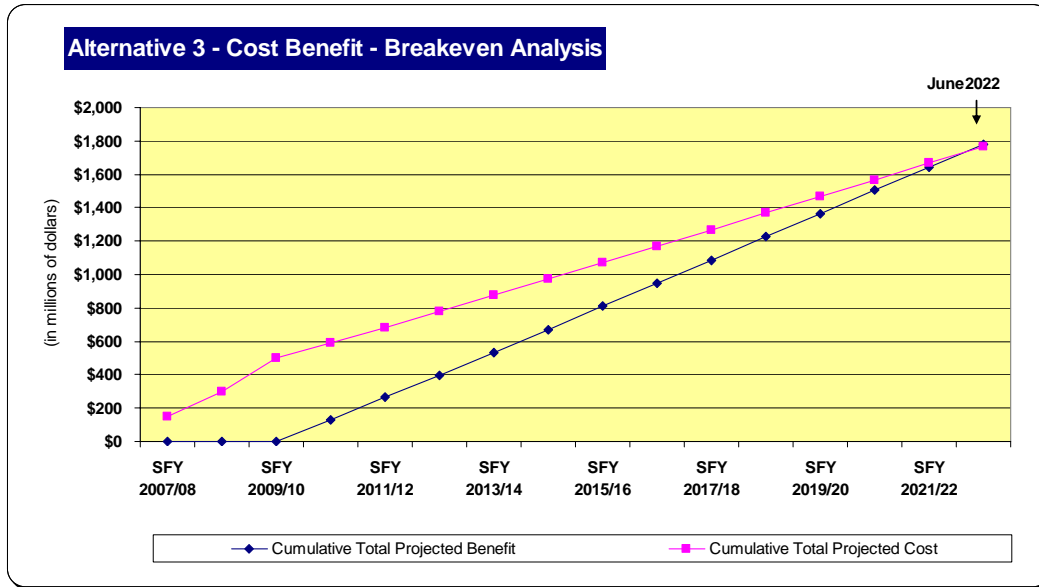


Figure 5 - Alternative 3 - Cost Benefit - Breakeven Analysis

As shown in the following chart, Alternative 3 is the only Alternative that will provide a return on investment.

Quantitative Factors	Alt 1	Alt 2	Alt 3
Total Present Value Benefits	519.96	462.06	594.26
Less Total Present Value Costs	1040.55	939.67	853.41
Net Benefit	-520.59	-477.61	-259.15
Benefit/Cost Ratio	0.50	0.49	0.70
Break-even (Months) from Inception	N/A	N/A	111
Break-even (Months) from Implementation	N/A	N/A	75

Figure 6 – Comparison of Quantitative Factors

As shown in the chart below, the most consistent cash flow over the entire ten-year period is Alternative 1. However, during the first three years, all Alternatives are at a relatively even cost level. In the third year, Alternative 2 begins a steady downward trend toward lower cash flows as migration from the current to new architecture occurs. In the fourth year, Alternative 3 begins incurring its cash flow at the lowest level of all three alternatives until the ninth year when Alternative 2 also hits the lower ongoing cost level. While Alternative 1 certainly meets the criteria for the most consistent flow of cash over the timeframe, it is difficult to award it the best ranking because it also maintains the highest total cost over the entire period.

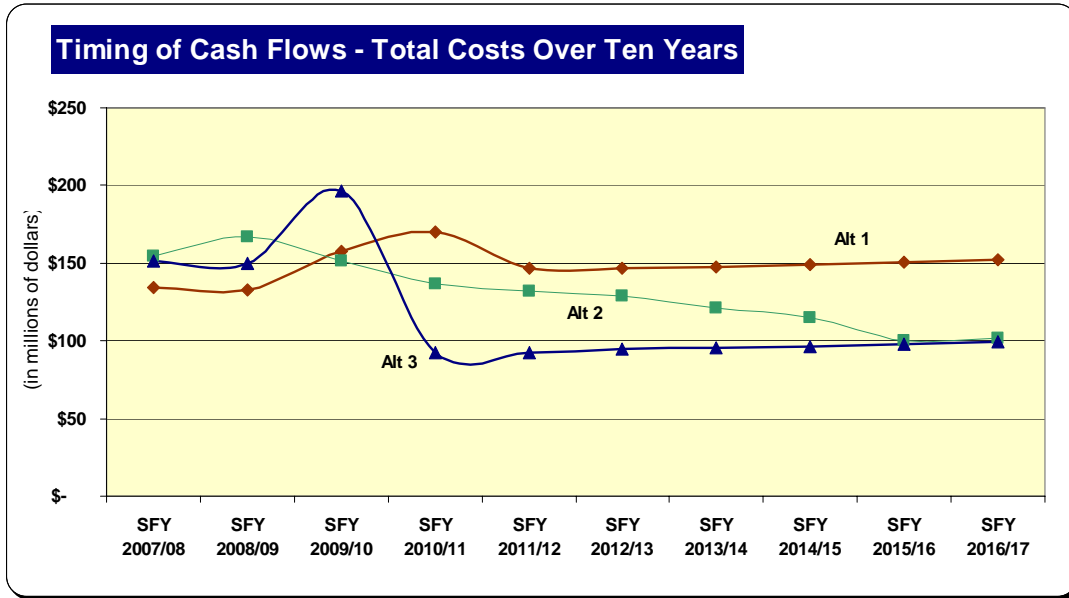


Figure 7 – Timing of Cash Flows – Net Cost/Savings

However, when looking at the overall net of cash flows out and savings being realized, the trend lines change dramatically. In the following graph, Alternatives 2 and 3 have a similar cash flow, but the cash flows associated with Alternative 3 have a greater positive gain over the ten-year period. In the overall category, Alternatives 2 and 3 rank equally.

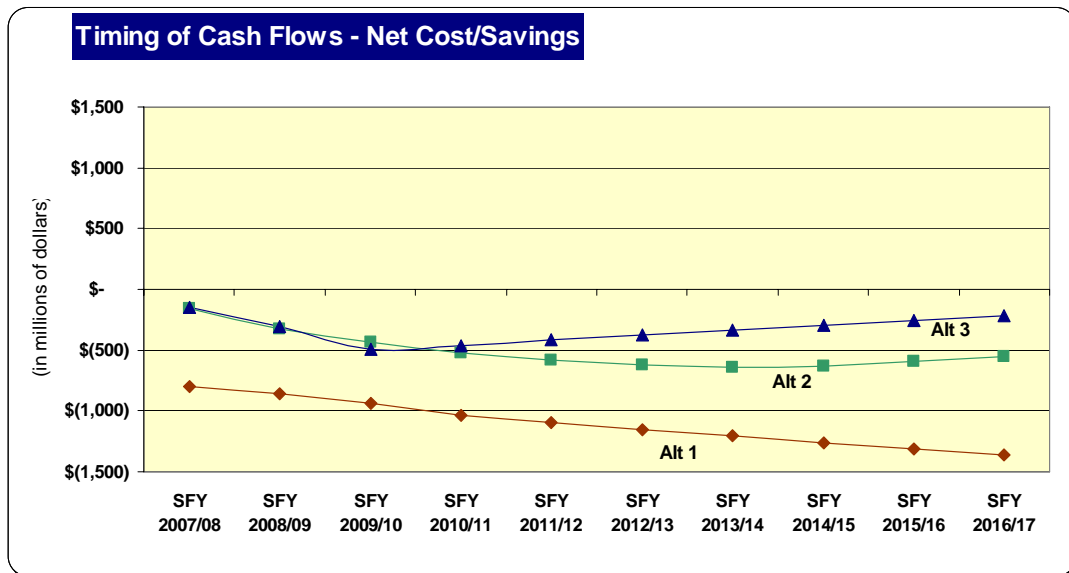


Figure 8 – Timing of Cash Flows – Net Cost/Savings

A.7 CONCLUSIONS AND RECOMMENDATION

Based on multiple factors considered in the Alternatives Analysis (the cost/benefits analysis being only one factor), the TAAA team recommended Alternative 3 with the development of the unfulfilled SACWIS requirements and the starting of critical functionality to meet immediate business needs earlier than originally identified. The State accepted Alternative 3 and began developing strategies for implementing the recommended direction. The State believes that re-architecting the system can reduce maintenance costs, reduce the time and costs required for system upgrades, provide improved functionality and user access, allow the use of commercial off-the-shelf software, allow the incorporation of web service components, and produce an open system architecture that is significantly easier to support than the current CMS/CMS.

As outlined in Section 3.2.6, the State has updated its strategy for implementing Alternative 3. California is now starting its remote access and data warehousing (separate APDU) efforts in July 2006 and the development of its new system (New System) in July 2007. The New System will be developed using a web services based technical architecture and include 1) the re-development of current functionality on the new architecture and 2) development of the four unfulfilled SACWIS requirements on the new architecture. Where appropriate, improvements will be made during the re-development of the current functionality to address business and user needs. The New System will include improvements that take advantage of the capabilities of the new architecture, while not changing the way the State and counties conduct business. The current CWS/CMS will be maintained during the development and decommissioned upon statewide implementation of the New System.

Appendix B - Economic Analysis Worksheets
